

(22,280.)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1912.

No. 112.

GEORGE McDERMOTT, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

IN ERROR TO THE SUPREME COURT OF THE STATE OF WISCONSIN.

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1 To the Honorable John B. Winslow, Chief Justice of the Supreme Court of the State of Wisconsin, and to the other Justices of said Supreme Court:

The petition of George McDermott, plaintiff in error, respectfully represents as follows:

1. That he is a citizen of the United States of America, and of the state of Wisconsin, and that he resides in the village of Oregon, in the county of Dane, and state of Wisconsin.

2. Petitioner further represents that on or about May 7, 1908, a criminal proceeding was instituted against him, and he was arrested in the name of the state of Wisconsin on complaint and warrant in the municipal court of Dane county, state of Wisconsin, charging him with unlawfully having in his possession with intent to sell, and offering and exposing for sale and selling, a certain article, product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of cane syrup, said cane syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labeled "Karo Corn Syrup", and was then and there further unlawfully branded and labeled "10% Cane Syrup, 90% Corn Syrup", in violation of Chapter 557 of the Laws of Wisconsin for the year 1907, relative to the branding and sale of syrups, molasses and glucose.

3. Said cause coming on for trial on May 19, 1908, in municipal court, your petitioner upon being called for arraignment, moved that the complaint against him be dismissed and that he be discharged on the ground that the complaint and warrant state no offense known to the law, and that the said statute upon which the proceeding is based is void, because it violates Article I, Sections 1, 8 and 9 of the constitution of Wisconsin, and Section 8 of Article I, and the fourteenth amendment of the constitution of the United States, known as the commerce clause of the constitution, and the clause which forbids state legislation denying the equal protection of the laws and denying due process. These motions were denied by the said municipal court.

4. Thereupon your petitioner being arraigned stood mute and a plea of not guilty was entered by the court. Thereupon your petitioner waived trial by jury. The court then proceeded to the trial, your petitioner offering no evidence, and your petitioner was found guilty of the offense alleged in the complaint and adjudged to pay a fine of \$25.00 and \$17.88 costs, and that in default of payment of such fine and costs your petitioner be committed to the county jail of Dane county, aforesaid, at hard labor, until such fine and costs are paid, not exceeding thirty days.

5. Thereupon your petitioner appealed from such judgment against him to the circuit court of Dane county, Wisconsin, and gave his bail thereon, as required by law, for his appearance in said circuit court.

6. Said cause coming on for trial on appeal before said circuit court on December 27, 1908, your petitioner appeared in person and

by his attorney, H. O. Fairchild, Esq., and waived trial by jury of such cause, and entered into a stipulation with the State of Wisconsin, which appeared by John M. Olin, Esq., that said case and a substantially similar case brought by the State of Wisconsin against one T. H. Grady, be tried together, and that the testimony taken in open court shall be regarded as testimony taken in each case—which trial was ordered by the court accordingly, and thereupon the said circuit court proceeded to the trial of said actions together.

7. Your petitioner on said trial before the circuit court admitted the sale, as charged, but expressly contended in and before said circuit court that the act under which the said prosecution is had, to-wit, said Chapter 557 of the Laws of Wisconsin for the year 1907, is invalid upon the grounds and for the reasons specifically set out in the assignment of errors hereto attached.

8. That the said circuit court sustained the validity of said act and the complaint and warrant thereunder, and the trial being concluded, the said court, on April 26, 1909, entered judgment against your petitioner convicting him of the offense of which he was charged in the complaint and warrant, and adjudging that he pay a fine of \$25.00 and costs of the action taxed at \$80.50, and that in default of payment of such fine and costs your petitioner be committed to the county jail of Dane County, aforesaid, at hard labor, until such fine and costs are paid, not exceeding thirty days.

9. Thereupon your petitioner removed said cause to the supreme court of the state of Wisconsin on writ of error, wherein your petitioner was and is designated as plaintiff in error and the said State of Wisconsin as defendant in error, and your petitioner assigned as error in said supreme court the following:

First. The trial court erred in convicting the defendant of any offense under the complaint and warrant herein, and in adjudging that he pay a fine and costs thereunder.

Second. The trial court erred in not finding Chap. 557 Laws 1907, under which the defendant was tried, convicted and fined, void and of no effect, because in violation of Secs. 1, 8, 9 and 13, respectively, of Art. I of the constitution of Wisconsin.

Third. The trial court erred in not finding Chap. 557 Laws 1907 void and of no effect because in violation of Sec. 1 of Art. IV of the constitution of Wisconsin.

Fourth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect, because in violation of that part of Sec. 8, Art. I of the constitution of the United States, known as the "commerce clause" of that constitution.

Fifth. The trial court erred in not finding Chap. 557, Laws 1907, void and of no effect because in violation of Sec. 1 of the fourteenth amendment of the constitution of the United States, in that it deprives the defendant of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

Sixth. The trial court erred in finding that the can or pail of "Karo Corn Syrup with Cane Flavor" sold by the defendant was not, at the time of such sale, an original unbroken package within

the meaning of the Act of Congress known as the Food and Drugs Act of June 30, 1906, or Chap. 3915; 34 Stats. L. 768.

Seventh. The trial court erred in finding that there is any fraud or deception upon the public or individual purchasers or consumers in selling the article in question herein as Karo Corn Syrup with Cane Flavor."

10. Said cause coming on for hearing before the supreme court of the state of Wisconsin, at the January term thereof for the year 1910, was duly argued and submitted on the part of your petitioner and the said State of Wisconsin, upon the assignment of errors aforesaid.

11. That on the 24th day of May, 1910, said supreme court of the state of Wisconsin overruled said assignment of error and affirmed the judgment and sentence of the said circuit court for Dane County, and the majority of said court filed a written opinion setting forth the grounds upon which the judgment of the said circuit court was by said supreme court affirmed, to which said opinion on file with the clerk of said supreme court of the state of Wisconsin reference is hereby made, and said supreme court then and there rendered final judgment in said cause in favor of said State of Wisconsin and against your petitioner.

12. Your petitioner further shows that the said decision and final judgment of the said supreme court of the state of Wisconsin draw in question the validity of a statute of the United States, and the said decision is against its validity.

Your petitioner further shows that said decision and final judgment as aforesaid draw in question the validity of a statute of the state of Wisconsin, on the ground of said statute being repugnant to the constitution and the laws of the United States, and the said decision is in favor of the validity of said statute of the state of Wisconsin.

Your petitioner further represents that in said cause he specially set up and claimed a title, right, privilege and immunity under the constitution of the United States, and under a statute of said United States, and the said decision is against the right, title, privilege and immunity so specially set up and claimed by your petitioner under such constitution and statute of the United States.

13. Your petitioner further represents that the decision and judgment in the aforesaid cause in the supreme court of the state of Wisconsin is a final judgment in the highest court of the state of Wisconsin in which a decision in said cause might be had, and your petitioner complains that in the record and proceedings had in said cause, and also in the rendition of said final judgment and decision in said supreme court of the state of Wisconsin against your petitioner, manifest error has happened, to the great damage of your petitioner, all of which will more in detail appear from the assignment of errors filed with this petition.

Wherefore your petitioner prays that a writ of error from the Supreme Court of the United States to the supreme court of the state of Wisconsin may be allowed by the honorable chief justice of the supreme court of the state of Wisconsin, to bring up for review

before the Supreme Court of the United States the said final judgment and decision of said supreme court of the state of Wisconsin, to the end that the said final judgment may be re-examined and reversed; that said honorable chief justice issue a citation on said writ of error, and fix the amount of a supersedeas bond, and that a transcript of the record, proceedings and papers in said cause, duly authenticated, may be sent to the Supreme Court of the United States; and that your petitioner may have such other and further relief in the premises as may be just; and your petitioner will ever pray.

Dated this 8th day of July, 1910.

H. O. FAIRCHILD,
Attorney for George McDermott, the
Above-named Plaintiff in Error.

Let the writ of error issue as prayed for in the above and foregoing petition, upon the execution of a bond by said George McDermott in the sum of \$500.00, such bond when approved to act as a supersedeas.

Dated this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
Chief Justice of the Supreme Court of
the State of Wisconsin.

7 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Petition for Writ of Error.

8 In the Supreme Court of the United States.

GEORGE McDERMOTT, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

This 8th day of July, 1910, came George McDermott, the plaintiff in error, by his attorney, and filed herein and presented to me his petition praying that a writ of error from the Supreme Court of the United States to the Supreme Court of the State of Wisconsin may be allowed to bring up for review before the Supreme Court of the United States, the final judgment and decision of said Supreme Court of the State of Wisconsin in the cause therein mentioned, and that a citation issue and the amount of a supersedeas bond be fixed and that a transcript of the record, proceedings and papers in said cause, duly authenticated, may be sent to the Supreme Court of the United States, and that such other and further proceedings may be had as may be proper in the premises.

In consideration whereof it is ordered, that a writ of error herein be and is hereby allowed upon the said George McDermott, plaintiff in error, giving bond according to law in the sum of five hundred dollars, which bond, when approved, shall act as a supersedeas.

Witness the Honorable John B. Winslow, Chief Justice of the Supreme Court of the State of Wisconsin, this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

9 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Order Allowing Writ of Error. Filed Jul- 8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

10 UNITED STATES OF AMERICA, ss:

The President of the United States of America to the Honorable the Justices of the Supreme Court of the State of Wisconsin, Greeting:

Because in the record and proceedings, as also in the rendition of the judgment of a plea which is in the said supreme court of the state of Wisconsin, before you, or some of you, being the highest court of law of the said state of Wisconsin in which a decision could be had in the said suit, between George McDermott, plaintiff in error, and the State of Wisconsin, defendant in error, wherein was drawn in question (1) the validity of a statute of the United States, and the decision was against its validity; (2), and wherein was drawn in question the validity of a statute of said state of Wisconsin, on the ground of its being repugnant to the constitution and laws of the United States, and the decision was in favor of its validity; and (3) wherein the said George McDermott, plaintiff in error, set up and claimed a title, right, privilege and immunity under the constitution of the United States and under a statute of the United States, and the said decision was against the title, right, privilege and immunity so specially set up and claimed under such constitution and statute; a manifest error hath happened to the great damage of the said George McDermott, plaintiff in error, as by his complaint appears.

We being willing that error, if any hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment be therein given, that then under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same,

11 to the supreme court of the United States, together with this writ, so that you have the same in the said supreme court at Washington, D. C. within thirty days from the date hereof, that the record and proceedings aforesaid being inspected, the said supreme court may cause further to be done therein to correct that error what of right, and according to the laws and customs of the United States, should be done.

Witness the Honorable Melville W. Fuller, chief justice of the

United States, this 8th day of July, in the year of our Lord one thousand nine hundred and ten.

[Seal U. S. Circuit Court, Western Dist. of Wisconsin,
Madison.]

F. W. OAKLEY,
*Clerk of the Circuit Court of the United
States for the Western District of Wis-
consin.*

By F. D. REED, *Deputy.*

Allowed by me this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

12 STATE OF WISCONSIN,
Supreme Court, ss:

The Return to the within writ appears by the schedule hereto annexed.

The return of the Justices of the Supreme Court of the State of Wisconsin.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG, *Clerk.*

13 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Writ of Error. Filed Jul-8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

14 UNITED STATES OF AMERICA, *ss:*

The President of the United States to the State of Wisconsin, Greeting:

You are hereby cited and admonished to be and appear at and before the Supreme Court of the United States, at Washington, D. C., within 30 days from the date hereof, pursuant to a writ of error, filed in the office of the Clerk of the Supreme Court of the State of Wisconsin, wherein George McDermott is plaintiff in error, and you are defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error, as in the said writ of error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable John B. Winslow, Chief Justice of the

Supreme Court of the State of Wisconsin, this 8th day of July, in the year of our Lord, One Thousand Nine Hundred and Ten.

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

Attest:

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
*Clerk of the Supreme Court
of the State of Wisconsin.*

15 In the Supreme Court of the United States.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Due and personal service is admitted this 9th day of July, 1910, of the foregoing attached citation, upon the undersigned attorneys for the State of Wisconsin, the said defendant in error.

F. L. GILBERT,
*Attorney General and Attorney for
said State of Wisconsin.*

JOHN M. OLIN AND
H. L. BUTLER,
*Special Counsel and Attorneys for
said State of Wisconsin.*

*Special Counsel and Attorney for
said State of Wisconsin.*

16 In the Supreme Court of the United States.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Jerome R. North is hereby authorized and deputized to serve the foregoing and attached citation upon said defendant in error, the state of Wisconsin, by delivering to and leaving with the Governor of said state and the Attorney General of said state, a true copy of said citation, and is authorized to serve said citation upon the attorneys for said defendant in error by delivering to and leaving with one of them, personally, a true copy of said citation.

Dated Madison, Wisconsin, July 8th, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

17

In the Supreme Court of the United States.

GEORGE MCDERMOTT, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

STATE OF WISCONSIN,
Dane County, ss:

Jerome R. North being first duly sworn on oath states that he is an attorney at law residing at Green Bay, Wisconsin, and authorized by the attached authorization to make service of the foregoing citation and that on the 9th day of July, 1910, at the city of Madison, Dane County, and state of Wisconsin, he personally served the citation in the above entitled cause hereto annexed on the attorneys for said state of Wisconsin, the defendant in error, by then and there delivering to H. L. Butler, Esq. personally, and leaving with him a true copy of said citation, said H. L. Butler being then and there one of the attorneys of record for said defendant in error in said cause. The deponent further states that on the 13th day of July, 1910, at said city of Madison, he served said citation on said defendant in error, the state of Wisconsin, by then and there delivering to the Governor of said state to wit, the Hon. James O. Davidson, personally, and leaving with him a true copy of said citation, and that on the 9th day of July, 1910, at said city he delivered to and left with Frank L. Gilbert, Esq., the Attorney General of said state, a true copy of said citation.

JEROME R. NORTH.

Subscribed and sworn to before me this 13th day of July, 1910.

[Seal Arthur A. McLeod, Notary Public, Dane County, Wis.]

ARTHUR A. McLEOD,

Notary Public, Dane County, Wisconsin.

My Commission Expires September 10, 1911.

18 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Citation and Proofs of Service. Filed Jul- 13, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

19

(Copy.)

In the Supreme Court of the State of Wisconsin.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Bond on Writ of Error from the Supreme Court of the United States.

Know all men by these presents, that we, George McDermott of Oregon, Dane County, Wisconsin, as principal, and The American Bonding Company of Baltimore as surety, are held and firmly bound unto the above named State of Wisconsin, in the sum of five hundred (\$500) dollars, to be paid to the said State of Wisconsin, for the payment of which well and truly to be made, we bind ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Sealed with our seals and dated this 8th day of July, in the year of our Lord One thousand nine hundred and ten.

Whereas, the above named George McDermott hath prosecuted a writ of error to the supreme court of the United States to reverse the judgment entered in the above entitled suit by the supreme court of the state of Wisconsin;

Now, therefore, the condition of this obligation is such, that if the above named George McDermott shall diligently prosecute his said writ of error and abide the judgment and sentence of the court thereon, and in the meantime shall keep the peace and be of good behavior, then this obligation shall be null and void; otherwise the same shall be and remain in full force and virtue

GEORGE McDERMOTT. [SEAL.]
AMERICAN BONDING COMPANY OF
BALTIMORE,

By A. D. McCONNELL,
Local Vice-President.

Attest:

HENRY H. MORGAN,
Local Ass't Secretary.

Signed, Sealed and Delivered, in Presence of
JEROME R. NORTH.
C. E. REEDS.

[CORPORATE SEAL.]

This bond is approved by me this 8th day of July, 1910, and the same shall act as a supersedeas.

(Signed) JOHN B. WINSLOW,
[SEAL.] *Chief Justice of the Supreme Court
of the State of Wisconsin.*

10

GEORGE McDERMOTT VS. THE STATE OF WISCONSIN.

21 [Endorsed:] Copy. In the Supreme Court of the State of Wisconsin. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Bond on Writ of Error. Filed. Jul- 13 1910 Clarence Kellogg, Clerk of Supreme Court, Wis.

22

STATE OF WISCONSIN,
DEPARTMENT OF INSURANCE.

The American Bonding Company located at Baltimore, in the state of Maryland, having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications required by the laws of the state of Wisconsin, relating to the Suretyship Corporations, and having complied with said laws.

Now therefore, this is to certify that said company has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1911, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin this 26th day of February, A. D. 1910.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, George E. Beedle, Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 51, issued to the American Bonding Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin this 8th day of July, A. D. 1910.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

23

In the Supreme Court of the United States.

GEORGE McDERMOTT, Plaintiff in Error,

vs.

THE STATE OF WISCONSIN, Defendant in Error.

Assignment of Errors.

And now comes into the supreme court of the United States, said George McDermott, plaintiff in error, in the above entitled cause, and makes and files this his assignment of errors, and says that in the final judgment, record and proceedings in the said action below, there is manifest error in this, to wit:

I. The supreme court of the state of Wisconsin erred in affirming the judgment of the circuit court of Dane County, in said state of Wisconsin.

II. The supreme court of the state of Wisconsin erred in not by its final judgment in the said action below reversing the judgment of the circuit court for Dane County, Wisconsin, and discharging said plaintiff in error.

III. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in not finding chapter 557 of the Laws of the state of Wisconsin for the year 1907—under which the plaintiff in error is prosecuted—invalid because repugnant to that part of section 8 of Article I of the constitution of the United States, known as the “commerce clause” of said constitution.

24 IV. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in not finding said chapter 557 invalid because repugnant to section 1 of the fourteenth amendment of the constitution of the United States, in that it deprives the plaintiff in error of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

V. The supreme court of the state of Wisconsin erred in not holding by its final judgment in the said action below, said chapter 557 invalid as repugnant to the fourteenth amendment of the constitution of the United States, because unreasonable, misleading and deceptive in requiring the use of the name “glucose” in designating, on the label therein referred to, the name of the mixture, sold by the plaintiff in error, while requiring the name “corn syrup” in designating on such label the same principal ingredient in such mixture—such latter designation being that defined in the standards of purity of food products as latest promulgated by the United States Secretary of Agriculture.

VI. The supreme court of the state of Wisconsin in and by its final judgment in the said action below erred in not finding said chapter 557 invalid as repugnant to the fourteenth amendment of the constitution of the United States for the further reason that said statute is indefinite, uncertain and fluctuating as to what acts constitute a violation of the statute, and because resort must be had to sources outside the statute itself, to wit, to the records of the office of the Secretary of Agriculture of the United States, by persons affected by the statute, to ascertain what acts constitute an offense under the statute.

25 VII. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in finding that the sale of “Karo Corn Syrup with Cane Flavor”, made by the plaintiff in error, was not of an article of interstate commerce and within the purview and regulated by the provisions of the Act of Congress, known as the “Food and Drugs Act of June 30, 1906”, or chapter 3915 of Volume 34 of the United States Statutes at Large, page 768.

VIII. The supreme court of the state of Wisconsin erred in not deciding by its final judgment in the said action below, that said chapter 557 of the Laws of Wisconsin for 1907, is invalid, even as to the domestic commerce within the state of Wisconsin, in the food products designated in said chapter 557 because such chapter 557 is an attempted regulation by one inseparable clause of the act, accomplishing all its results by the same general words, of both such domestic and interstate commerce in such food products, after the Congress had, by said Food and Drugs Act of 1906, fully covered

the subject of such interstate commerce by specific regulations in conflict with the regulations of said chapter 557.

IX. The supreme court of the state of Wisconsin by its final judgment in the said action below erred in deciding that the sale by the plaintiff in error, as is complained of against him, was not within the provisions of said Food and Drugs Act of Congress of 1906, or protected or regulated thereby, for the reason that such Act of Congress has no reference to and does not cover sales of the food products therein designated in the original package by the person or persons introducing such product into one state from another state.

X. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in finding that the sale
26 of the article in question by plaintiff in error was not under the protection of the interstate commerce clause of the constitution of the United States.

XI. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in holding that chapter 557 of the Laws of Wisconsin of 1907, is valid as a police regulation of the state of Wisconsin, although the same is in conflict with the said "commerce clause" of the federal constitution and the fourteenth amendment of said constitution and in conflict with said Act of Congress of June 30, 1906.

XII. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in finding that there was any fraud or deception upon the public, individual purchasers or consumers in selling the article in question herein as "Karo Corn Syrup" as a mixture of 90 per cent of corn syrup and 10 per cent of cane syrup.

XIII. The circuit court of Dane County, in said state of Wisconsin, erred in not dismissing the complaint and warrant therein against the plaintiff in error, on the ground that said chapter 557 is invalid for each and every of the reasons and errors hereinbefore assigned against the said final judgment of the supreme court of the state of Wisconsin.

And the plaintiff in error, George McDermott, therefore prays that the said decision, final judgment and findings of the supreme court of the state of Wisconsin be reversed because of the aforesaid errors and because of other errors in the record and proceedings in the above entitled cause. And the said plaintiff in error, George McDermott, further prays that the said judgment and findings of the circuit court for Dane County, Wisconsin, be reversed by the supreme court of the United States because of errors hereinabove assigned and because of other errors in said record and proceedings.

27 And said plaintiff in error, George McDermott, herewith files his petition for a writ of error from the supreme court of the United States to the supreme court of the state of Wisconsin, to the end that the said final judgment, record and proceedings in said cause may be brought before the said supreme court of the United States for review as provided by law in such cases.

H. O. FAIRCHILD,
*Attorney for said Plaintiff in
Error, George McDermott*

The aforesaid assignments of error were duly presented to me this 8th day of July, 1910, before allowing the writ of error in such cause of even date.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

28 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Assignment of Errors. Filed Jul-8 1910 Clarence Kellogg, Clerk of Supreme Court, Wis.

29 STATE OF WISCONSIN:

In Supreme Court.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

It appearing that said George McDermott has sued out a writ of error from the Supreme Court of the United States to the Supreme Court of Wisconsin, to reverse the judgment heretofore entered in said cause in this court, and it being necessary and proper in my opinion that the following original papers should be inspected in the Supreme Court of the United States upon said writ of error.

It Is Ordered that the following original papers be transmitted by the clerk of this court to the clerk of the Supreme Court of the United States in connection with the transcript of proceedings herein, and that said original papers be safely kept by the clerk of said supreme court of the United States until thirty days after the decision of said Supreme Court of the United States upon said writ of error, and that they then be returned to the clerk of this court. The original papers so ordered to be sent up, are exhibits 38 to 129, both inclusive, and are contained in a book marked on the front cover "Circuit court, Dane County, Wisconsin, Filed April 17, 1909, Lawrence O. Larson, Clerk", and on the back "16 Corn Products"—said book now being in the custody of the clerk of this court as part of the record herein.

It is Further Ordered that the following exhibits of material forming part of the evidence taken in the court below—the same consisting of various bottles and cans of samples—and now
30 being in the custody of the clerk of this court, be transmitted by the clerk of this court to the marshal of the supreme court of the United States at least one month before said writ of error is heard in said court, and that they be retained by said marshal until thirty days after the decision on said writ of error—for the inspection of the court on the hearing of such case.

The following are the exhibits in this case, last hereinbefore re-

ferred to, and so ordered to be sent to said marshal, to wit: Exhibits B, C, D, E, F, 1, 1-b, 1-c, 1-d, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 37, 156 and 160.

Dated July 8th 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

31 [Endorsed:] Original. State of Wisconsin, in Supreme Court. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Order as to Original Exhibits. H. O. Fairchild, Attorneys for Plff in Error, Green Bay, Wis. Filed Jul-8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

32 In the Supreme Court of the United States.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Certificate of Lodgment.

SUPREME COURT,
State of Wisconsin, ss:

I, Clarence Kellogg, clerk of the supreme court of the state of Wisconsin, do hereby certify that there was lodged with me, as such clerk, on the 8 day of July, 1910, in the matter of George McDermott, plaintiff in error, against the State of Wisconsin, defendant in error, the following:

1. The original bond, of which a copy is herewith set forth;
2. Two copies of the writ of error as herein set forth; one for said defendant in error and one to file in my office.

In Witness Whereof I have hereunto set my hand and the seal of said court this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
*Clerk of the Supreme Court
of the State of Wisconsin.*

33 [Endorsed:] Original. In the Supreme Court of the United States. George McDermott, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Certificate of Lodgment.

34 Pleas before the Supreme Court of the State of Wisconsin at a term thereof begun and held at the Capitol in Madison, the seat of government of said State on the second Tuesday, to-wit, the eleventh day of January, A. D. 1910.

Present:

John B. Winslow, Chief Justice.

Roujet D. Marshall,

Joshua Eric Dodge,

Robert G. Siebecker,

James C. Kerwin,

William H. Timlin,

John Barnes,

Justices.

Clarence Kellogg, Clerk.

Be it remembered that heretofore, to-wit on the tenth day of August in the year of our Lord One Thousand Nine Hundred and Nine came into the office of the Clerk of the Supreme Court of the State of Wisconsin, George McDermott, by his attorney, and filed in said court his certain Writ of Error, according to the statute in such case made and provided, and also the return to such writ of the Clerk of the Circuit Court of Dane County, in said State, in words and figures following, that is to say:

35 STATE OF WISCONSIN,
Supreme Court, ss:

The State of Wisconsin to the Judge of the Circuit Court of the County of Dane, in said State, Greeting:

Because, in the record and proceedings, and also in the rendition of judgment, in a suit which was duly tried in the Circuit Court of Dane County aforesaid, before you, between The State of Wisconsin, Plaintiff, and George McDermott, Defendant, in a criminal action for the violation of chapter 557 of the Laws of Wisconsin for 1907, of manifest error hath intervened to the great damage of the said George McDermott as by his complaint we are informed.

And we being willing that the error, if any there be, should in due manner be corrected and full and speedy justice done to the parties aforesaid, do command you, that if judgment be thereupon given, then you send to the judges of the Supreme Court of the State of Wisconsin, distinctly and openly, under your seal, with all convenient dispatch, a transcript of the record and proceedings of the suit aforesaid, with all things concerning the same, and this writ, so that they may have the same at the next term of our said Supreme Court, to be held at Madison, in the State aforesaid, on the Tenth day of August, Anno Domini one thousand nine hundred and nine that the record and proceedings aforesaid, being inspected, we may cause to be further done, for correcting that error, what of right, and according to law and the rules of our said Court, ought to be done.

Witness, the Hon. John B. Winslow, Chief Justice of the Su-

preme Court of the State of Wisconsin, at Madison, this 26th day of April, A. D. 1909.

Attest:

[SEAL.]

CLARENCE KELLOGG, *Clerk.*

36 (Endorsements:) State of Wisconsin, Supreme Court. State of Wisconsin against George McDermott. Writ of Error. Filed; Jul- 25, 1909, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

37

State of Wisconsin.

Department of Insurance.

The American Bonding Company, located at Baltimore in the state of Maryland, having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications required by the laws of the state of Wisconsin relating to Suretyship Corporations, and having complied with said laws,

Now, therefore, This is to Certify that said company, has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1910, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin, this Fifth day of March, A. D. 1909.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, Geo. E. Beedle, Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 45 issued to the American Bonding Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin, this 10th day of May, A. D. 1909.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

38

State of Wisconsin.

Department of Insurance.

Whereas, The American Bonding Company of Baltimore located at Baltimore in the State of Maryland having complied with the laws of this State, applicable to companies transacting business as surety on obligations of persons or corporations, is licensed to transact the business of Surety insurance in this State until the first day of March 1910.

Now, therefore, I Geo. E. Beedle, Commissioner of Insurance of the State of Wisconsin, in pursuance of the laws thereof, do hereby

license Henry H. Morgan of Madison in the County of Dane as Agent of the aforesaid Company to transact its business in this State, according law, so far as he may be empowered by his letter of appointment from said Company, until the first day of March, A. D. 1910.

Witness my hand and official seal, at Madison, Wisconsin, this 1st day of March A. D. 1909.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

39

Dane County Circuit Court.

STATE OF WISCONSIN, Plaintiff,

vs.

GEORGE McDERMOTT, Defendant.

Know all men by these presents, that George McDermott as principal, and American Bonding Company of Baltimore, Maryland, as surety, are jointly and severally firmly bound unto the state of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), good and lawful money of the United States of America, for the payment of which by them well and truly to be made they jointly and severally bind themselves and each of them, subject to the conditions hereinafter stated, that is to say:

Whereas, the said George McDermott was on the 26th day of April, 1909, duly convicted by and before the circuit court for the county of Dane in said state of Wisconsin of a violation of the provisions of chapter 557 of the laws of Wisconsin for 1907, and upon such conviction adjudged and sentenced to forthwith pay a fine of Twenty-five Dollars (\$25.00), together with the costs of the action, amounting in all to the sum of One Hundred and Five Dollars and Fifty cents, (\$105.50), and in default of such payment to be imprisoned in the county jail of said county of Dane until such fine and costs be paid, not exceeding sixty days and

Whereas, the said George McDermott feeling himself aggrieved by such judgment and sentence of the court, has sued out of the supreme court of this state a writ of error, returnable to said court at the next term thereof, to be held on the 10th day of August, 1909, to review such judgment and sentence and correct the same if it be not according to law; and

40

Whereas, the said circuit — for the county of Dane did, on said 26th day of April, 1909, make its order staying the execution of such judgment and sentence until the final hearing and decision of the said action in the said supreme court under said writ of error, in case the said George McDermott file in said court his bond, with a sufficient surety, to the state of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), approved by the court, conditioned upon the said George McDermott appearing in said supreme court during the said next term thereof and prosecuting the said action to a final decision and judgment under such writ of error and abiding the judgment and sentence of the said

court thereon, and in the meantime keeping the peace and being of good behavior;

Now therefore, the condition of the foregoing obligation is such that if the said George McDermott shall appear in the said supreme court at the next term thereof, to be held on the 10th day of August 1909, and prosecute the said cause to a final decision and judgment in said court under such writ of error, and abide the judgment and sentence of the said court thereon, and in the meantime keep the peace and be of good behavior, then and in that case the above obligation shall be void and of no effect, otherwise the same shall be and remain in full force and effect.

Dated this 26th day of April, 1909.

GEORGE McDERMOTT. [SEAL.]
[CORPORATE SEAL.] AMERICAN BONDING COMPANY
OF BALTIMORE,
By A. D. McCONNELL,

Local Vice President.

Done in the Presence of
H. O. FAIRCHILD.

Attest:

HENRY H. MORGAN, *Local Ass't Secretary.*

41 (Endorsements:) Circuit Court Dane County, State of Wisconsin, Plaintiff, vs. George McDermott, Defendant. Bond. Surety herein and bond are approved. April 26th, 1909. By the Court, E. Ray Stevens, Judge. Filed: Apr. 26, 1909, Circuit Court, Dane County, Wisconsin, Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg Clerk of Supreme Court of Wise.

42 STATE OF WISCONSIN,
City of Madison and County of Dane, ss:

In Municipal Court.

H. C. Larson being duly sworn and examined, on oath, complains to the Municipal Court of the City of Madison, and County of Dane, that on the 2nd day of March, 1908, at the Village of Oregon, County of Dane, and State of Wisconsin, George McDermott did unlawfully have in his possession with intent to sell, and did offer and expose for sale and did sell, a certain article, product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of cane syrup, said cane syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labeled "Karo Corn Syrup", and was then and there further unlawfully branded and labeled "10% Cane Syrup, 90% Corn Syrup", contrary to the statute in such case made and provided, as said deponent verily believes, and prays that the said George McDermott may be arrested and dealt with according to law.

H. C. LARSON.

Subscribed and sworn to before me this 7th day of May, 1908.

F. E. CURRIER,
Clerk of the Municipal Court, Dane County, Wisconsin.

(Endorsements:) In Municipal Court, City of Madison and County of Dane. State of Wisconsin against George McDermott. Complaint. Filed this 7th day of May A. D. 1908, F. E. Currier, Clerk of the Municipal Court for Dane-County, Wis. Filed: Circuit Court Dane County, Wis. Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed: Aug. 10 1909, Clarence Kellogg, Clerk Supreme Court, Wis.

43 STATE OF WISCONSIN,

City of Madison, and County of Dane, ss:

In Municipal Court.

The State of Wisconsin to the Sheriff, Policeman or any Constable of said County:

Whereas, H. C. Larson has this day complained in writing to the Municipal court for the County of Dane, Wisconsin, on oath, that on the 2nd day of March A. D. 1908, at the Village of Oregon, in said county, George McDermott did unlawfully have in his possession with intent to sell and did offer and expose for sale and did sell a certain article product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of cane syrup, said cane syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labelled "Karo Corn Syrup" and was then and there further unlawfully branded and labeled "10% Cane Syrup, 90% Corn Syrup," against the peace, and contrary to the statute in such case made and provided, and prayed that the said George McDermott might be arrested and dealt with according to law.

Now, therefore, In the name of the State of Wisconsin, you are commanded forthwith to apprehend the said George McDermott and to bring him before the said Municipal court to be dealt with according to law.

Witness, the Honorable Anthony Donovan, Municipal Judge of said County, at Madison, the 7th day of May, in the year of our Lord one thousand nine hundred and eight.

[SEAL OF MUNICIPAL COURT.]

F. E. CURRIER,
Clerk of the Municipal Court.

(Endorsements:) Criminal Warrant "A". Municipal Court for the County of Dane, Wisconsin. The State of Wisconsin against George McDermott. Dane County, ss. The within warrant executed by arresting the within named George McDermott and have him in custody now before the Court.

44

Fees.

Arrest	\$.25,
Mileage, 24 M.	2.40,
Conveying prisoner50,
Committing50,
Attending Court75,
	<hr/>
	\$4.40

Dated this 8th day of May, A. D. 1908, G. M. Kanouse Deputy Sheriff. Filed this 8th day of May, A. D. 1908. F. E. Currier, Clerk of the Municipal Court, Madison, Wis. Filed: June 3 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44a

Recognizance.

STATE OF WISCONSIN,
City of Madison and County of Dane, ss:

In Municipal Court.

THE STATE OF WISCONSIN
against
GEORGE McDERMOTT.

I, George McDermott hereby give bail in the sum of One Hundred Dollars, for the appearance of myself on the 19th day of May A. D. 1908, at 10 o'clock A. M. before the Municipal court of said county and City, held in said City, at the Dane County Court House, to answer to a criminal prosecution for selling syrup unlawfully labeled and from time to time and from day to day thereafter until discharged by law.

Dated May 8th, A. D. 1908.

GEORGE McDERMOTT.

(Endorsements:) Municipal Court City of Madison and County of Dane. State of Wisconsin against George McDermott. Recognizance. Filed May 8 A. D. 1908, F. E. Currier, Clerk of the Municipal Court. Filed: June 3, 1908, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44b

STATE OF WISCONSIN
against
GEORGE McDERMOTT.

Complaint for Selling Syrup Unlawfully Branded & Labeled.

H. C. Larson, Complainant.
Vroman Mason & John M. Olin, Att'ys for State.
H. O. Fairchild, Att'y for Deft.

1908, May 7th.—On examining Complainant on oath and reducing the same to writing warrant issued by the order of the Court, returnable forthwith and delivered to G. M. Kanouse, Deputy Sheriff.

1908, May 8th.—Warrant returned, defendant arrested and in custody now before the Court. Fees. Arrest .25, travel 24 m. 2.40, conveying prisoner .50, Committing 50, attending court .75, total 4.40, G. M. Kanouse, Deputy sheriff. Defendant brought up on the

order of the Court and duly arraigned and he waived the reading of the complaint herein and pleaded not guilty thereto, and by agreement between the parties the case was continued for cause shown until the 19th day of May, A. D. 1908 at 10 o'clock A. M. at the Municipal Court Room in the Dane County Court House. The Court fixed the bail at One Hundred Dollars for the appearance of the said defendant on the 19th day of May A. D. 1908 at 10 o'clock A. M. at the above stated place. The court allowed the defendant to sign his own recognizance and he was released from custody to abide the order of the Court herein.

1908, May 19th, 10 o'clock A. M.—Case called, parties present and defendant in court by his attorney, John Moran and by agreement between the parties the case was continued until 2 o'clock P. M. this 19th day of May A. D. 1908, at the Municipal Court Room in the Dane County Court House.

2 o'clock P. M.—Case called. Parties present and defendant in Court. The Court appointed Alma B. Roup, stenographer, to report the case, and she was duly sworn to do so to the best
44c of her ability.

Now comes H. O. Fairchild, attorney for the defendant and *made* motion to withdraw the defendant's plea of not guilty for the purpose of making a motion to dismiss. Motion granted. Plea of not guilty withdrawn. Thereupon the defendant's attorney made motion that the complaint be dismissed and the defendant discharged, on the ground that the complaint and warrant states no offense known to the law and that the statute upon which the proceeding is based is void, First, because it violates *one* Section one and sections eight and nine of Article eight of the Constitution of the State of Wisconsin, and section eight of Article one and the fourteenth amendment of the Constitution of the United States, known as the commerce clause of the Constitution and the clause of the Constitution which forbids the statute legislation denying equal protection of the law and denying two provisions. Motion denied. The defendant was duly arraigned, and he waived the reading of the Complaint, and as far as the plea was concerned stood mute. Thereupon the Court entered a plea of not guilty for the defendant. The defendant waived a trial by jury. Trial begun by the Court and the following witnesses were duly sworn on behalf of the State: H. C. Larson, Richard Fischer. State rests. The defendant's attorney stated to the Court that the defendant did not wish to introduce any testimony. Defendant rests. Case submitted to the Court. Thereupon the Court finds the defendant guilty of the offense as alleged against him in the complaint herein and adjudges and determines that he be punished by the payment of a fine of Twenty-five dollars together with the costs of this action, taxed at \$17.88, and in default of the payment of said fine and costs, that
44d he be committed to the common jail of Dane County at hard labor until the said fine and costs are paid, not to exceed Thirty days. I. E. Kittleson, Sheriff, Attending Court, .75.

Now comes the defendant and files his written notice of appeal from the judgment and sentence herein to the Circuit Court of Dane County, Wisconsin. (See notice of appeal on file.) The Court fixed the bail at One Hundred Dollars for the appearance of

the said defendant before the Circuit Court of Dane County, Wisconsin, upon the opening of the October Term thereof upon the 12th day of October, A. D. 1908, at 10 o'clock A. M. The defendant having given satisfactory bail was released from custody to abide the order of the said Circuit Court herein.

The Court ordered that the case with all the papers herein be sent to the Circuit Court for Dane County, Wisconsin.

Witness Fees.

H. C. Larson, two 1/2 days, 4 M.	\$1.66
Richard Fischer, 1/2 " 2 "	.83

Reporter's Fees.

Alma B. Roump, 1/2 day	\$2.50
Transcript of testimony, 21 folios	2.10
Total	\$4.60

Costs.

Fine	\$25.00
County tax	5.64
Officer's fees	5.15
Witness fees	2.49
Reporter's fees	4.60
On Appeal	1.68
	<hr/> \$44.56

Circuit Court Dane County, Wis. Filed Jun- 3 1908. Lawrence O. Larson, Clerk. Filed Aug. 10 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44e STATE OF WISCONSIN:

Dane County, Municipal Court.

STATE OF WISCONSIN
against
GEORGE McDERMOTT.

I, F. E. Currier, Clerk of the Municipal Court for the County of Dane, Wisconsin, do hereby, pursuant to the order and under the direction of the Judge of said court, transmit to the Circuit Court of said County, all the papers and a copy of the record of the proceedings in the foregoing and above entitled action, and I do certify that the papers returned herewith are the original papers filed in this office and all of the same, that I have compared the foregoing transcript of the proceedings herein with the original record in this office and that the same is a true and correct copy thereof and of the whole thereof.

Given under my hand and the seal of the said Court at the Clerk's office in the City of Madison this 3rd day of June, A. D. 1908.

[Seal of Municipal Court.]

F. E. CURRIER,
*Clerk of the Municipal Court
for the County of Dane, Wis.*

(Endorsements:) Filed, Circuit Court Dane County, Wis., Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44f (Endorsements:) State of Wisconsin, Dane County, Municipal Court. State of Wisconsin against George McDermott. Circuit Court, Dane County, Wis. Filed Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44g STATE OF WISCONSIN,
City of Madison and County of Dane, ss:

In Municipal Court.

THE STATE OF WISCONSIN
vs.
GEORGE McDERMOTT, Defendant.

Now comes the defendant in the above entitled action and appeals from the judgment and sentence therein to the Circuit Court of said County next to be held therein, the said judgment and sentence having imposed upon him a fine of \$25 and costs of said action and in default thereof that he stand committed to the County jail of said County for 30 days.

Dated this 19th day of May, 1908.

GEORGE McDERMOTT.

(Endorsements:) State of Wisconsin vs. George McDermott. Notice of Appeal. Filed this 19th day of May, A. D. 1908. F. E. Currier, Clerk of the Municipal Court. Filed Jun- 3, 1909. Circuit Court, Dane County, Wis. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44h STATE OF WISCONSIN,
City of Madison, County of Dane, ss:

In the Municipal Court for Dane County.

THE STATE OF WISCONSIN
against
GEORGE McDERMOTT.

Know all men by these presents, That we George McDermott as principal, and The United States Fidelity and Guaranty Company,

of Baltimore, Md., as surety are held and firmly bound, and by these presents do hold and firmly bind ourselves, our heirs, executors, successors and assigns unto the State of Wisconsin in the sum of One Hundred Dollars to be well and truly paid, if default shall be made in the conditions following, to-wit:

The Conditions of this recognizance are such that, whereas the above bounden George McDermott has been brought before the Municipal court for said Dane County, it having been charged upon the oath of H. C. Larson that, on the 2nd day of March A. D. 1908, at the Village of Oregon in said Dane County, the said George McDermott did sell a certain syrup unlawfully branded and labeled.

And whereas, on the trial of said George McDermott upon the 19th day of May A. D. 1908, he was duly convicted as charged, and thereupon adjudged guilty and duly sentenced by the Court to pay a fine of twenty-five dollars together with the costs of the action, or in default thereof to be imprisoned in the County jail for said Dane County for the term of thirty days, and the said George McDermott having thereupon, to-wit, upon the 12th day of October A. D. 44i 1908, duly filed notice of appeal to the circuit court for Dane county.

Now, therefore, if the said George McDermott shall appear before the said circuit court held in the court-house for said Dane County in the City of Madison in said Dane County upon the opening of the October term thereof upon the 12 day of October, A. D. 1908, at 10 o'clock A. M. and from time to time and from day to day thereafter until discharged by law, and shall then and there diligently prosecute his appeal and abide the sentence of the court thereon, and in the meantime shall keep the peace and be of good behavior, then this recognizance to be void, otherwise to remain in full force and effect.

Dated May 19, A. D. 1908.

GEORGE McDERMOTT. [SEAL.]

UNITED STATES FIDELITY &
GUARANTY CO.,

By C. F. LAMB, [SEAL.]
General Agent and Attorney in Fact.

(Endorsements:) State of Wisconsin. In Municipal Court for Dane County. The State of Wisconsin against George McDermott. Recognizance on Appeal to Circuit Court. Filed this 19th day of May, A. D. 1908. F. E. Currier, Clerk of the Municipal Court. Filed Jun- 3, 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44j

State of Wisconsin,
Department of Insurance.

The U. S. Fidelity & Guaranty Company, located at Baltimore in the state of Maryland having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications

required by the laws of the state of Wisconsin relating to suretyship corporations, and having complied with said laws,

Now, therefore, this is to certify that said company, has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1909, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin, this 22 day of February, A. D. 1908.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, Geo. E. Beedle, Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 20 issued to the U. S. Fidelity & Guaranty Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin, this 19 day of May, A. D. 1908.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

44k (Endorsements:) Filed Jun- 3, 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44l 42d Day of October, A. D. 1908, Term, to-wit, Monday, Dec. 28, 1908.

Court Called to order:

Present:

Hon. E. Ray Stevens, Judge.

I. E. Kittleson, Sheriff.

S. G. Oakey, Undersheriff.

E. H. Smith, Reporter.

Lawrence O. Larson, Clerk.

STATE OF WISCONSIN

vs.

T. H. GRADY and GEORGE McDERMOTT.

And now comes the plaintiff the State of Wisconsin and its attorneys Vroman Mason and John M. Olin and the defendants, T. H. Grady and George McDermott issue having heretofore been joined and proceed to the trial thereof before the Court.

Upon stipulation made in open court it is agreed to try the two cases entitled State of Wisconsin vs. T. H. Grady and State of Wisconsin vs. George McDermott together, and so ordered by Court.

Thereupon the court proceeded with the trial of the cases.

LAWRENCE O. LARSON,
Clerk of Court.

44m STATE OF WISCONSIN:

In Circuit Court Dane County.

STATE OF WISCONSIN, Plaintiff,
vs.

T. H. GRADY, Defendant.

STATE OF WISCONSIN, Plaintiff,
vs.

GEORGE McDERMOTT, Defendant.

Memorandum of Decision.

By the COURT: In the consideration of the questions here presented for determination, the court should accord to the legislature the highest consideration, not condemning its action so long as any reasonable basis can be discovered for upholding the constitutionality of chapter 557 laws of 1907. But if none can be discovered, the court must put the stamp of judicial disapproval upon the act.

If there be any fraud or deception in the sale of the article here in question, the case comes clearly within the rule of *Plumley v. Massachusetts*, 155 U. S. 461. In that case the supreme court upheld the right of the state to prescribe the conditions under which a wholesome food product, the subject of interstate traffic, could be sold in original packages. The decision was based on the ground that it is within the power of a state to exclude from its markets any food products so prepared as to cause it to look like an article of food in general use and thereby mislead the public into buying what it would not otherwise purchase.

44n The evidence convinces the court that the public generally understand a "syrup" to be the concentrated sap of a sugar producing plant. The term "corn syrup" naturally suggests that the product is a syrup produced from corn. Certainly the name carries no suggestion that it is produced by the action of acid on starch, which may be made from a score of different substances as well as from corn. But even if the product here in question were properly termed a syrup, that is not the controlling fact. As was said of oleomargarine, "It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other." *Plumley v. Massachusetts*, 155 U. S. 461, 475; 39 L. Ed. 223, 228. Even if this product be a syrup, the difference in the cost of producing it, if no other factor were involved, would make it a fraud to sell this article to the public under a name that induces the belief that it is procuring a syrup produced in the usual way by boiling down the sap of a sugar producing plant.

The fact that the product here in question has become a recognized article of commerce under the designation "corn syrup" does not affect the question we are considering, if its sale under this name

does in fact mislead or deceive the public. *Crossman v. Lurman*, 192 U. S. 189; 24 Sup. Ct. Rep. 234, 238.

The question is not whether the term "corn syrup" is coming into general use, the question is whether this name deceives the public and leads it to buy that which it would not otherwise purchase.

Whether the product be wholesome or unwholesome, whether
440 the consumer have valid reasons or only unreasoning prejudices in regard to the matter, the public has a right to know, and the state the right to compel the disclosure of, what is contained in all food products offered to the consumer.

State v. Aslesen, 52 N. W. 220, 221;

Stolz v. Thompson, 46 N. W. 410.

When the defendants established the fact that the public generally would not purchase the product if it were put out under the name of glucose (which is shown to be a proper designation), they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public. So that, even if the pails in which these defendants sold this product were the original packages of interstate commerce, the court concludes that the case falls within the rule of *Plumley v. Massachusetts*, *supra*, and that the statute in question is not an unwarranted interference with the right of the federal government to regulate interstate commerce.

It will be observed that the statute in question does not attempt to impose such unreasonable restrictions on the sale of the product as were considered in *Collins v. New Hampshire*, 171 U. S. 30; or to absolutely prohibit its sale, as was done in *Pennsylvania*, *Schollenberger v. Pennsylvania*, 171 U. S. 1; but leaves the producer and the merchant free to sell it, when properly labelled.

Nor did the passage of the national pure food law take from the state the power to regulate the sale of the product after it had become incorporated in and mingled with the mass of property of this state. The federal government has power to regulate the branding of articles of commerce so long as they are the subject of in-
44½0 terstate commerce. But when the importer has so acted on the thing imported that it becomes incorporated into and mixed with the mass of property in this state, it loses its distinctive character as an article of commerce and becomes subject to all lawful regulations which the state may enact. This rule finds apt illustration in the following cases:

Welton v. Missouri, 1 Otto, 275; 23 L. Ed. 347, 350;

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1167-8.

Any other application of the federal law would delegate to Congress the power to regulate the internal affairs of the state and deprive it of all right to exercise its police powers in protection of the public.

It may well be doubted whether the pail in which each of these defendants sold this product could in any event be considered an original package of interstate commerce. In the decision on which

the original package doctrine is based (*Brown v. Maryland*, 12 Wheat. 419) Chief Justice Marshall limits the application of the doctrine to the property of the importer while remaining in his ware house in the original form or package in which it was imported. Speaking for the United States Supreme Court, Mr. Justice Brown has recently pointed out the fact that in all the cases which have arisen in that court where the original package doctrine was applied, "the packages were of such size as to exclude the idea that they were to go directly into the hands of the consumer." *Austin v. Tennessee*, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 138.

Upon reason and authority it would appear that the wooden cases in which these pails were shipped into the state was the original package of interstate commerce, and that when this case 44p was opened and these pails taken out and mingled with other goods in the stores of the defendants they were not original packages, but goods subject in all ways to the regulations prescribed under the police powers of this state.

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1170.
Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 137.

The mere fact that such regulations may in some degree affect interstate commerce is not sufficient to condemn the act, if otherwise within the proper exercise of such power. Within the legitimate exercise of the police power the state may prescribe such labeling as may reasonably be necessary to protect its people from fraud or deception in the sale of food products.

The fact that the title to the act in question declares the law one to protect the public health does not conclude the courts. They may determine the fact and give the law effect according to its scope and tenor, even though that may not be in literal accord with the title of the act.

State v. Redmon, 114 N. W. 137, 141;

Field, J., in Powell v. Pennsylvania, 127 U. S. 678; 32 L. Ed. 253, 260.

As we have seen, there is such danger that the public may be misled and defrauded into buying a product which it would not otherwise purchase, if the name "corn syrup" is used, as to suggest some reasonable necessity for a remedy, affordable only by legislative enactment, as to efficiently invite public attention thereto. Such being the case, it is primarily a legislative function to determine what means shall be adopted to protect the public. It is only when the boundaries of reason have been so clearly exceeded as to violate some constitutional prohibition, express or implied, that the court has any power to interfere with the exercise of this 44q legislative power. *State v. Redmon*, 114 N. W. 137. When the state acts within these bounds, the state does not deprive any citizen of liberty or property without due process of law.

Wilkinson v. Rahrer, 140 U. S. 545; 35 L. Ed. 572, 574;

Austin v. Tennessee, 179 U. S. 343, 21 Sup. Ct. Rep. 132, 134.

The constitution does not confer on any man the right to keep secret the composition of the substance which he offers to the public as a food product. The compel him to disclose its composition does not deprive him of his property without due process of law (State v. Aslesen, 52 N. W. 220, 221; Stolz v. Thompson, 46 N. W. 410, 411), even though it may prevent him from using a trade name. State v. Tetu, 107 N. W. 953.

He may be compelled to sell the product for what it actually is, upon its own merits, and is not entitled to the benefit of any additional market value which may be imparted to it by resorting to any means which shall make it resemble, or sell for, or in the place of, any well known food product. Plumley v. Massachusetts, 155 U. S. 461, 475; 39 L. Ed. 223, 228.

In People v. Harris, 97 N. W. 402, the only question presented to the court was whether the legislature has prohibited the sale of glucose under the name "corn syrup." The state had by stipulation and concession taken out of the case practically all the questions before this court for consideration. As no constitutional questions were discussed in that case, it throws little light upon the constitutional questions under consideration in the case at bar.

The court concludes that none of the constitutional rights of the defendants have been violated by chapter 557 laws 1907.

Turning to the question of whether the reference to the standards promulgated by the secretary of agriculture is a delegation
44r of legislative power, the case would seem to fall squarely within the rule of Buttfield v. Stranahan, 192 U. S. 470, 494; 24 Sup. Ct. 349, 355; approved in St. Louis Ry. Co. v. Taylor, 210 U. S. 281, 286-7, and Cooperville Creamery Co. v. Lemon, 163 Fed. Rep. 145.

But the question of the effect of reference to these standards is not involved in the cases at bar. Assuming that this reference to these standards is a delegation of legislative power, and giving the act that construction which the court must give it when its constitutionality is questioned, it is not reasonably clear that the legislature would not have enacted the portions of chapter 557 laws of 1907 relating to mixed syrups, without that part which contains the reference to the standards. The part of the act relating to mixed syrups is complete in itself. It prescribes exactly the label required for each different mixture and defines and classifies these mixtures without any reference to the standards or to the preceding part of the section. Even if the part of the act relating to unmixed syrups be void (a conclusion which the court has not arrived at), the balance of the act is independent of these provisions, and valid and enforceable.

The court concludes that the portion of chapter 557 laws of 1907 here under consideration is a valid constitutional enactment. Under the undisputed evidence the defendants are guilty of the offenses charged against them. Counsel for the defendants may produce them before the court of April 26th, 1909, at 2 P. M. to receive

sentence, at which time the court will consult with counsel as to the necessity of formal findings.

Dated April 16, 1909.

By the Court.

EDWARD H. SMITH,
Official Reporter.

44s (Endorsements:) Circuit Court Dane County. State of Wisconsin vs. T. H. Grady et al. Memorandum of Decision. Filed Circuit Court Dane County, Wis., Apr. 17, 1909. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44t 7th Day of April, A. D. 1909, Term, to-wit, Monday, April 26, 1909.

Court called to order.

Present:

Hon. E. Ray Stevens, Judge.

John P. Halback, Sheriff.

Wm. Klusmann, Under Sheriff.

E. H. Smith, Reporter.

Lawrence O. Larson, Clerk.

STATE OF WISCONSIN

vs.

GEORGE McDERMOTT.

And now comes the plaintiff, the State of Wisconsin, and its attorneys, the District Attorney, Vroman Mason, and John M. Olin, and the defendant, George McDermott, and his attorney, H. O. Fairchild.

Thereupon George McDermott, the defendant, was arraigned before the court.

Thereupon the court made inquiry of the defendant, George McDermott and his attorney if they had anything to say why sentence should not be passed upon him.

Thereupon the defendant, George McDermott, stated to court, as did also his attorney, that they had nothing to say why sentence should not be passed.

Thereupon the defendant, George McDermott, was called forward and the court pronounced sentence upon said defendant, George McDermott, as follows, to-wit:

The court finds you guilty of the offense, as charged against you, of having sold syrup not labeled as required by law, and the judgment of the court is that you be punished by the imposition of a fine in the sum of Twenty-five Dollars (\$25.00) and by the costs of the action, which have been taxed and allowed at Eighty and 50-100 Dollars, in all the sum of One Hundred Five and 50-100 Dollars, and in default of the payment of this fine,

you stand committed to the common jail of Dane County, Wisconsin, until fine and costs are paid, but not to exceed sixty days in all.

Upon motion of H. O. Fairchild, attorney for said defendant, order staying execution of judgment until hearing and decision of the Supreme Court granted.

LAWRENCE O. LARSON,
Clerk of Court.

44v

Dane County Circuit Court.

STATE OF WISCONSIN, Plaintiff,

vs.

GEORGE McDERMOTT, Defendant.

At a general term of said court held on the 26th day of April, 1909, Present, Hon. E. Ray Stevens, presiding judge:

It appearing to this court that the above named defendant has this day sued out of the supreme court of the state of Wisconsin a writ of error to review the judgment and sentence of this court this day pronounced, wherein and whereby the said defendant was convicted of a violation of the provisions of chapter 557 of the laws of Wisconsin for 1907, and adjudged and sentenced to pay a fine of Twenty-five dollars (\$25.00), together with the costs of the action, amounting in all to One Hundred and Five Dollars and Fifty Cents (\$105.50), and in default of such payment that the said defendant be confined in the county jail of Dane county until such fine and costs be paid, not exceeding sixty days—the said writ of error being returnable to the next term of said supreme court to be held on the 10th day of August; 1909, on motion of H. O. Fairchild, attorney for the said defendant,

It is ordered, that the execution of said judgment and sentence of the court be and the same hereby is stayed until the final hearing and decision of the said supreme court under said writ of error, in case the said defendant this day file in this court his bond to be approved by the court with a sufficient surety to the State of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), conditioned upon the said defendant appearing in said supreme

44w court at the said term thereof and *and* prosecuting the said cause to a final decision and judgment in said court under such writ or error and abiding the judgment and sentence of the said court thereon and in the meantime keeping the peace and being of good behavior—the said bond to be returned to said supreme court under said writ.

By the Court:

E. RAY STEVENS, *Judge.*

(Endorsements:.) Original. Circuit Court Dane County. State of Wisconsin, plaintiff, vs. George McDermott, defendant. Order to stay execution and judgment. Filed. Apr. 26, 1909, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed. Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44x STATE OF WISCONSIN:

Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
vs.
GEORGE McDERMOTT, Defendant.

It is hereby ordered that the original papers instead of a certified copy of the record be returned to the supreme court under the writ of error herein.

Dated this 22nd day of July 1909.

By the Court:

E. RAY STEVENS, *Judge.*

(Endorsements:) Original. The State of Wisconsin, plaintiff, vs. George McDermott, defendant. Order. Filed. Jul. 22, 1909. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis. Greene Fairchild North & Parker, Attorneys for Def't. Green Bay, Wis.

44y STATE OF WISCONSIN,
County of Dane, ss:

I, Lawrence O. Larson, clerk of the circuit court within and for the said county of Dane, in obedience to the mandate of the within and foregoing writ of error and of the foregoing order of said circuit court requiring the return of the original papers of record in the action in which said writ of error is issued instead of certified copies thereof, and the stipulation of the parties relative to this and a supplemental return herewith, transmit and return to the Honorable Supreme Court of the State of Wisconsin each and every and all of the original papers, records and proceedings on file and of record in my office in said action, as well as said writ.

In testimony whereof I hereunto set my hand and affix the seal of the said circuit court this 9th day of August, 1909.

[SEAL.]

LAWRENCE O. LARSON,
*Clerk Circuit Court for the County
of Dane, State of Wisconsin.*

(Endorsements:) Filed. Aug. 10 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44z STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
vs.
GEORGE McDERMOTT, Defendant.

Bill of Exceptions.

Original.

45 STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
vs.
GEORGE McDERMOTT, Defendant.

To John M. Olin, Esq., Special Counsel for the State:

The defendant in the above entitled action proposes the attached transcript of testimony, proceedings, orders, rulings, decisions, exceptions, exhibits, etc. etc. as his proposed bill of exceptions in the foregoing entitled action.

Dated this 24th day of June, 1909.

H. O. FAIRCHILD,
Attorney for Defendant.

Filed: Oct. 12-1909.

CLARENCE KELLOGG,
Clerk Supreme Court, Wis.

45½ STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
vs.
GEORGE McDERMOTT, Defendant.

This cause coming on to be heard at the October term of said court for the year 1908, before Hon. E. Ray Stevens, presiding judge of said court, without a jury, a jury having been expressly waived by stipulation in open court between the parties, upon the appeal of the defendant from the judgment and sentence of the Municipal Court of the County of Dane, on the 27th day of December, 1908, and continued from day to day thereafter until the conclusion of the trial thereof, the following proceedings were had, testimony taken, evidence submitted, rulings, decisions and orders made, offers submitted, objections made and exceptions taken—John

M. Olin appearing as attorney on behalf of the State and H. O. Fairchild appearing as attorney for the defendant—that is to say:

It was stipulated and agreed by and between the parties to this action, in open court, that the above entitled action, and another action wherein the State of Wisconsin is plaintiff and T. H. Grady defendant, shall be tried together, and that the testimony taken in open court shall be regarded as testimony given in each case.

46 H. C. LARSON, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Larson, where do you live?

A. In this city.

Q. And how long have you lived here?

A. I have lived here since last September.

Q. And your business is what?

A. Second assistant dairy and food commissioner.

Q. And have been in that position for how long?

A. Since February last year.

Q. And what position were you holding prior to that time?

A. The position of creamery, dairy and food inspector.

Q. You have been connected with the department for how long?

A. Since 1905.

Q. As such assistant did you have anything to do with the purchasing of some article from the defendants here, Mr. McDermott and Mr. Grady?

A. Yes sir.

Q. I wish you would just go on and state to the court the facts of the case?

A. On the 2nd day of March this year at the village—I presume it is the village of Oregon, in this county, I went into the place of business of Mr. T. H. Grady and purchased from him a pail of corn syrup, paid him for it the sum of twenty-five cents. Also entered the place of business—

Q. Taking that one first, can you pick out of these can- which one that was? There are two cans produced.

A. Number 1258 H. C. L. is the registration number of T. H. Grady's can purchased from T. H. Grady. This is the can, or the pail rather, purchased from T. H. Grady.

Q. That was before the municipal court, was it not, the same can?

A. Yes sir. Those serial numbers are the same.

Q. It was marked at the time, was it not?

47 A. I placed these identification numbers on the can at the time I purchased it from Mr. Grady.

Q. And that number is on the can, "1258 H. C. L." is it not?

A. Yes sir.

Q. And below there is some writing "T. H. Grady, Oregon, Wis. 3/2/08 Pd. 25 cts". Whose writing is that?

A. Mine.

Q. That was put there by you at what time?

A. At the time I purchased the pail of corn syrup.

Q. Can you state whether the brand that's now on that can was on it at the time you purchased it?

A. Yes sir.

Q. That reads, does it not, "Karo", under that "Trade Mark", under that "Corn Syrup with Cane Flavor".

A. Yes sir.

Q. And below that is "Corn Products Manufacturing Co. Davenport, Iowa"?

A. Yes sir.

Q. And another brand on it is "Karo Corn Syrup is a pure food product, its ingredients, Corn Syrup 85% and Refiners' Syrup 15%, are of the highest quality and prepared according to the U. S. standards."

A. Yes sir.

Q. There is also printed on there, is there not, near the top, "Guaranteed under the Food and Drugs act June 30, 1906. Serial No. 311".

A. Yes sir.

Q. And there is also on the can, is there not, inside of a small circle the word "Karo" and below it "Trade Mark".

A. Yes sir.

Q. The price of the can is also on it, is it not?

A. Yes sir, underneath that circle, "25 cents".

48 Q. Now were you in the store when the can was produced that you purchased—you were in the store at that time, were you?

A. Yes sir.

Q. Did you see from what place it was obtained—did you see the man get it for you?

A. Yes sir.

Q. And hand it to you?

A. Yes sir.

Q. He took it from what place?

A. He took it from the package of other cans containing like mixtures I presume.

Q. Was it in a package or was it on the shelf? You testified on that, if you remember, in the court below.

A. The data on this particular can I haven't, but in my opinion it was taken from the shelf.

Q. Yes that is my recollection of the testimony in the court below.

A. In the other case, however, it was taken from the shelf. I have the data here.

Q. You have the data there?

A. Yes sir.

Q. Or minute that you made of that fact?

A. Yes sir. My recollection is that it was taken from the shelf.

Q. Which did you buy first, the one from Grady or the one from McDermott? Do you remember, or don't you?

A. Not positively, but I am of the opinion that Mr. McDermott's was first. I made four purchases in that town.

Q. What did you do with this can after you bought it?

A. I sealed it up and placed the identification numbers on it and delivered it to the chemist at the laboratory.

Q. The chemist's department?

A. Dr. Fischer.

49 Q. Dr. Richard Fischer?

A. Yes sir.

Q. Now, on the same day did you also buy a can from McDermott, one of the defendants?

A. Yes sir, from the place of business of B. McDermott Sons, from Mr. George McDermott.

Q. Just go on and state what you purchased from him?

A. I purchased from him a can or pail of corn syrup, placed on the pail the serial number 1259 H. C. L. as an identification mark.

Q. I hand you a pail. Is that the pail you purchased from him?

A. Yes sir.

Q. Was that present in the municipal court upon the preliminary hearing?

Q. Yes sir.

Q. Or upon the trial I guess it was there. Was this paper around it at that time which is around the bottom of it now?

A. Yes sir, that's the paper over which the seal was placed.

Q. It was originally done up, wasn't it, and sealed?

A. Yes sir, wrapped up in a paper and a seal placed on it.

(The wrapping paper just referred to was removed from the can by Mr. Olin with the consent of counsel for the defendant).

Q. And it was in that shape in the municipal court?

A. Yes sir.

Q. You placed your number on that, did you, at that time?

A. Yes sir, 1259 H. C. L.

Q. And is this your writing at the bottom of that label or towards the bottom "B. McDermott Sons, Oregon, Wis. 3/2/08 Pd. 25 cts".

A. Yes sir.

Q. That is your writing, is it?

A. Yes sir.

Q. Now this has on it, has it not, the same label as the other?

A. Yes sir.

50 Q. Which is the prominent label as far as size is concerned?

A. "Corn Syrup".

Q. Well it is "Karo" isn't it?

A. Yes sir.

Q. And "Corn Syrup"?

A. Yes sir.

Q. Is there any such term as glucose on either of these cans?

A. No sir, not that I discover.

Q. This has on it in one place, has it not, "90% Corn Syrup"?

A. Yes sir.

Q. And on another place printed "10% Cane Syrup"?

A. Yes sir.

Q. Another place there is printed, is there not, "Compound: 85% Corn Syrup, 15% Cane Syrup" and that is sort of crossed out?

A. Yes sir.

Q. Where was that, in a box or on the shelf?

A. It was among a number of other packages on the shelf, exposed there for sale in the store with like mixtures, I presume.

Q. These were what kind of packages, pound packages, or don't you know?

A. I don't know. I should judge they weighed about five pounds.

Q. What is the size of the can?

A. It states on this can "5 lbs. Net Weight".

Q. You did what with this purchase?

A. I wrapped the paper around it and tied a string on it, sealed it up and delivered it to Dr. Fischer.

Q. The food chemist?

A. Yes sir.

Mr. OLIN: That is all. Take the witness.

Mr. FAIRCHILD: That's all.

51 Dr. RICHARD FISCIFER, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Doctor, where do you reside?

A. Madison, Wisconsin.

Q. And what is your business?

A. I am chemist of the Wisconsin dairy and food commission and also assistant professor at the University of Wisconsin.

Q. You have been such chemist for the food commission for how long?

A. Since January 17, 1903.

Q. I wish, doctor, you would state here so as to get it into the record your previous training and experience fitting you for this position.

A. After graduation from the high school I entered the University of Michigan and after two years of study received the degree of Pharmaceutical Chemist. I continued my studies there and after two more years took the degree — bachelor of science in chemistry. I also was assistant in analytical chemistry for two years at the university of Michigan. From there I went to the university of Wisconsin as an instructor and was instructor from 1894 to 1898, when I went to Europe and pursued two years of study in the universities of Berlin and Marburg and took the degree of doctor of philosophy and master of liberal arts at the university of Marburg, specializing in chemistry. I came back as assistant professor in the university of Wisconsin and am still holding that title, and since 1903, as before stated, I have also been chemist for the Wisconsin dairy and food commission.

Q. And as such chemist you may state, doctor, in a general way what your duties are?

A. My duties are, besides advisory ones to the commissioner, to undertake analyses of samples of food and drug products, primarily those that are submitted by inspectors of the commission.

52 Q. And you have had to do then, as such chemist, with the execu-

tion of the pure food law which was enacted by our legislature a few years ago?

A. Yes sir.

Q. I wish you would state so as to get it into the record what the Association of Official Agricultural Chemists is?

A. The Association of Official Agricultural Chemists is an association composed of the chemists of the United States Department of Agriculture and of the various state experimental stations and also the chemists of the various state dairy and food commissions and of quite a number of boards of health.

Q. Have you heard the testimony of Mr. Larsen, Dr. Fischer, as to these two cans of so-called Karo Corn Syrup?

A. I have.

Q. Did you as such food chemist analyze the contents of those two cans?

A. Yes sir.

Q. I wish you would state the result of your analysis?

A. I found both of the samples to be composed of seventy-five per cent or more—more than seventy-five per cent. I will say—of commercial glucose and less than twenty-five per cent. of some syrup of molasses, probably refiners' syrup.

Q. In each case?

A. In each case.

Q. Can you give us, doctor, an accurate definition of glucose?

A. I consider the definition of glucose given in Circular No. 19, published by the United States Secretary of Agriculture, as an accurate definition of glucose.

Q. Is that one of the food products for which a standard was fixed by the secretary of agriculture on June 26, 1906, or promulgated on that date?

A. It is.

Q. Did you assist in the preparation of those standards?

A. Yes sir, in getting them into the form in which they appeared in Circular No. 19. I did not have anything to do with the standards that were promulgated in 17, 13 and I believe there was another one, Circular No. 10.

Q. No, I am calling attention to simply this circular.

A. Yes sir.

Q. Can you state the committee that acted in the preparation of that circular No. 19 of these food products?

A. The committee consisted of William Frear of State College, Pennsylvania. Dr. Edward H. Jenkins of the Connecticut Agricultural Experiment Station, Dr. M. A. Scovell, Director of the Kentucky Agricultural Experiment Station, Dr. H. A. Weber, Professor of Agricultural Chemistry in the Ohio Agricultural College, Dr. H. W. Wiley, Chief of the Bureau of Chemistry of the United States Department of Agriculture. These five comprise the committee on official standards of the Association of Official Agricultural Chemists, and I was appointed by the secretary of agriculture as an expert to assist in the formulating of standards. I really represented what was then called the International Food Com-

mission, what is now called the Association of State and National Food and Dairy Department.

Q. Well, now can you state the definition of glucose as determined by this body of men that you have named and approved of by the secretary of agriculture?

A. My definition is as follows: Glucose, mixing glucose, confectioners' glucose (these three being synonyms) is a thick, syrupy colorless product made by incompletely hydrolyzing starch, or a starch-containing substance, and the decolorizing and evaporating the product. It varies in density from forty-one to forty-five degrees Baume at a temperature of one hundred degrees Fahrenheit and conforms in density within these limits to the degree Baume it is claimed to show, and for a density of forty-one degrees Baume contains not more than twenty-one per cent and for a density of forty-five degrees not more than fourteen per cent of water. It contains on a basis of forty-one degrees Baume not more than one per cent of ash, consisting chiefly of chlorids and sulphates.

Q. What is your opinion, doctor, as to whether or not that is a correct definition of glucose?

A. I think it is, the article known commercially as glucose.

Q. Does it or does it not go into the chemical composition of the product?

A. It does not.

Q. Chemically considered, commercial glucose consists of what?

A. Consists of a solution of water, of dextrose, dextrin, maltose and some ash constituents at the present time in this country, mainly, sodium chlorate, and perhaps some other products, concerning which, however, nothing is very definitely known, a product that has been called gallisin. It is claimed to have been isolated by some investigators. Other investigators claim that this gallisin is only another form of maltose or iso-maltose. But neglecting these products concerning which not very much is known, the composition I gave before explains it.

Q. The three main items.

A. Dextrin and dextrose, maltose being present in only a very small proportion, and ash being present in only a very small proportion.

Q. Can you give us the percentage within certain limits of the maltose, dextrin and dextrose, the mineral matter called ash and water, that you find in this product, glucose?

55 A. Leach, in his book on Food Analysis, gives the following limits: Dextrin from 29.8 to 45.3 per cent; maltose 4 to 19.3 per cent; dextrose from 34.3 to 36.5 per cent; ash from .39 to .52 per cent; and water from 14.2 to 17.2. However, I believe the limit of variation is somewhat larger. The variation is given as greater in the Report on Glucose of the committee appointed to investigate glucose by the National Academy of Science.

Q. What is the variation there so far as it states any difference?

A. Leach evidently tabulated his composition from the first three samples of glucose that are tabulated in this report.

Q. What report?

A. Just mentioned, the report of that committee.

Mr. FAIRCHILD: You mean the committee of which you were assistant?

A. No, the Committee of the National Academy of Science. They report the composition as follows: Dextrose varying from 34.3 to 42.8; maltose from nothing to 19.3.

Q. They leave the maximum the same as you gave it before, but leave the minimum at nothing?

A. Yes. The next highest was only 6.5. Of Dextrin the lowest was 29.8 and the highest 45.3. Of ash, the lowest was .32 and the highest was 1.06 of water, the lowest was 14.2 and the highest 22.6. This for liquid glucose. I might say that the methods for the exact determination of these various products are not very perfect, and the actual variation may be a little bit in excess or a little bit below those.

Q. But as to the item of dextrin it would, speaking broadly, vary from a third up to say somewhere less than one-half.

A. I believe I gave the figures, 29.8 to 45.3.

Q. Now, of these three substances: dextrin, maltose and dextrose, which of them are true sugars?

A. Dextrose and maltose.

56

Q. What are true sugars?

A. Sugars are a class of organic substances known as carbon-hydrates; that is, they are a part of a class of organic substances known as carbohydrates, which are characterized by being crystallizable and having a sweet taste and having some warm chemical properties. They are all more or less closely allied to one another.

Q. Now, is dextrin a sugar?

A. No sir.

Q. What is it?

A. It is in its physical character more closely allied to the gums than it is to the sugars, and it is commercially known as British gum.

Q. And when in a solution of water would be really what?

A. Its solution in water constitutes a mucilage, and in fact the National Formulary, which is one of the standards for drugs in this state, recognize a solution of dextrin in two parts of water under the name of mucilage of dextrin.

Q. Now dextrose, one of the other elements, is that also known as grape sugar?

A. True grape sugar is dextrose. It is also known as dextro-glucose.

Q. It's a constituent of grapes, is it?

A. It is a constituent of grapes and is the sugar that is frequently found on the outside of dried grapes or raisins.

Q. What is maltose?

A. Maltose is also known as malt sugar and is a sugar that is produced in the sprouting of grain by the action of diastase, which is the unorganized ferment or enzyme present in malt, upon starch. It is also produced to a slight extent by the action of acids upon starch.

Q. What do you say as to sweetness of dextrose or maltose as compared with cane sugar or beet sugar or maple syrup?

57 A. Dextrose is generally stated to be three-fifths as sweet as cane sugar or sucrose.

Q. Is sucrose another name for cane sugar?

A. Yes sir.

Q. And that is the sugar that is present in what?

A. That is the sugar that is present in the juice of the sugar cane, of sorghum, of sugar beets, of maple sap. Maltose is even less sweet than dextrose. Dextrin is not sweet at all or has at the most a very faint sweet taste, hardly recognizable.

Q. Now, take glucose made of these three elements in the main that you speak of; dextrin, dextrose and maltose, what do you say as to its character as to sweetness and as to its character as to having flavor or being insipid?

A. I think the word insipid expresses its character as far as taste is concerned. It has a slight sweet taste, very much less tho' than a solution of cane sugar of the same density, and it has practically no characteristic flavor.

Q. And in that respect what do you say as to whether it is like or different from cane syrup, maple syrup, sorghum or refiners' syrup.

A. I would say that it differs from these in that cane syrup, sorghum and maple syrup, all have characteristic flavors indicating their source.

Q. Now because of this lack of sweetness and lack of flavor, what do you say about glucose being sold alone, unmixed with anything else, for consumption upon the table as a syrup?

A. I am sure that I would not use it—

Q. Well, that is hardly the test. That isn't the test.

A. I do not believe—

Q. The question is whether glucose, unmixed with anything else, the article you described, is used upon the table by the consumer?

58 A. I am sure that it isn't sold for that purpose in the state of Wisconsin on the retail market.

Q. In other words, if it is used by the consumer on the table, it's used in connection with what?

A. It is used in connection generally with molasses or with what is known as refiners' syrup, which is really a kind of molasses also, which substances are added for the purpose of giving flavor and color and additional sweetness to the product.

Q. Now, from what can glucose be made?

A. Commercial glucose can be made—

Mr. FAIRCHILD: Is that what you asked him, commercial glucose?

Mr. OLIN: I had in mind commercial glucose. We are dealing in commercial glucose. I don't refer to the glucose you might get out of honey.

Mr. FAIRCHILD: You asked him from what it can be made.

Mr. OLIN: You can answer it both ways, if you wish to, doctor.

A. Commercial glucose can be made and is generally made from starch by the action of mineral acids upon the starch. In this country it is made almost exclusively, if not exclusively, at the present time, from corn starch.

Q. That is, starch obtained from what?

A. Obtained from the grain corn. In Europe it is made largely from potato starch.

Q. Would there be any difference in the product whether it is made from the starch of corn or from the starch of potatoes?

A. There would be no appreciable difference. It could also be made from tapioca starch, in fact from any starch by the action of mineral acids, and hydrochloric acid is, as far as I know, used exclusively or almost exclusively in this country, while formerly sulphuric acid was used almost exclusively.

Q. What would you say then, speaking of glucose made from corn?

59 A. I would say that glucose is not made from corn, but is made from—

Mr. FAIRCHILD: Are you seeking his opinion as to whether that is a proper name or not?

Mr. OLIN: Yes.

Mr. FAIRCHILD: That is, whether in his opinion it is a proper name?

Mr. OLIN: Yes, proper designation. You speak of it as something made from corn.

A. While it is indirectly made from corn, it is directly made from the starch obtained from corn, and the corn adds nothing to the character of the product, it adds nothing to the flavor, and the glucose has no corn flavor whatsoever, and I do not believe, therefore, that it should be said even that it is made from corn; it is made from starch.

Q. How, if you can tell us, is commercial glucose prepared?

A. Without going into detail, I may say that it is prepared by the action of dilute mineral acid; hydrochloric or sulphuric generally, upon starch at somewhat elevated temperatures. Glucose is the first product so obtained. If the action of the acid is prolonged, and especially if the temperatures that are used are elevated, the starch will be converted almost entirely into the sugar dextrose, and the product obtained in the latter manner is known commercially as starch-sugar and sometimes as grape-sugar.

Q. What would you say as to dextrin and maltose being almost intermediate products—starch and dextrose?

A. They are, yes sir.

Q. There is such a thing, is there, as commercial grape-sugar or starch-sugar?

A. Yes sir.

Q. And you obtain that article how?

60 A. As stated, by the action of dilute acids upon starch for a considerable length of time, at least a much longer time than is necessary to convert the starch into glucose. It can also be obtained from other sources. Grape Sugar, as stated is con-

tained in grapes and therefore in raisins. It is contained in honey together with another sugar known as levulose, and it is contained with this levulose in almost all acid fruits, and it is produced by what is known as the inversion of sucrose or cane sugar, that is, by the treatment of cane sugar with acids the cane sugar is changed into equal parts of dextrose and levulose, and before cane sugar can ferment it is necessary to change the cane sugar first into invert sugar composed of dextrose and levulose.

Q. Is this starch-sugar an expensive or cheap article?

A. As manufactured from starch it is a cheap article.

Q. Is used for what?

A. If manufactured from honey or grapes, it would be rather an expensive article.

Q. It wouldn't be made that way commercially?

A. No, not commercially.

Q. And made commercially and used commercially it is how used or for what purpose is it used?

A. It was formerly used to some extent as an adulterant of cane sugar. In my experience as chemist of the Wisconsin dairy and food commission I have only found one instance where it was sold in place of cane sugar and that perhaps accidentally.

Q. It is used to manufacture beer, isn't it?

A. Yes, for the manufacture of beer and ales it has been used in the past, and a certain form of it is sold under the name commercially of brewers' sugar.

Q. Now, as I understand it, you get that product by continuing this process longer?

A. Yes sir.

Q. Beyond the point where you continue it for the purpose of making glucose commercially out of starch?

A. Yes sir.

Q. Now, doctor, can you give us a definition of refiners' syrup, the other term that we deal with here?

A. The product known commercially as refiners' syrup or treacle is the residual liquid product obtained in the process of refining raw sugars and contains not more than twenty-five per cent of water and not more than eight per cent of ash. The first is the definition. The second is the chemical standard.

Q. You regard that as being a correct definition?

A. I do. Altho' I believe that "refiners' molasses" or "sugar-house molasses" would be a better name for this product than refiners' syrup.

Q. And why do you say that?

A. The words "refiners' syrup" in my opinion creates the impression in the mind of the consumer that this is a superior article, that it is better for example than molasses, whereas in fact, as far as purity is concerned, it is inferior to the better grades of molasses. It contains a higher percentage of impurities. Its color is generally lighter tho' and its flavor rather characteristic, and it is therefore used very much for mixing with glucose in making these glucose mixtures.

Q. Where does this refiners' syrup come from?

A. Refiners' syrup is produced in the refining of raw sugars.

Q. Does it come from beet sugar?

A. No sir.

Q. Why not?

A. The molasses obtained in the manufacture of beet sugar contains impurities of such a character as to render the molasses unfit for human consumption.

Q. It is cut up into feed for stock?

62 A. Used at the present time almost exclusively in the manufacture of cattle feed.

Q. Then the purpose of mixing refiners' syrup with glucose is what?

A. To give to the glucose and of course to the mixed product a flavor, color and also additional sweetness.

Q. Now as to these two articles that enter in this mixture or compound as to whether they are expensive or cheap articles of food relatively?

Objected to as incompetent.

Objection overruled.

Exception by defendant.

A. Glucose is our cheapest form of sugar or similar preparation. There might be some very low grade molasses or very low grade refiners' syrup even that would be cheaper than glucose, but glucose is much cheaper than any true cane syrup, sorghum syrup or maple syrup and it is also more expensive than high grade molasses or refiners' syrup or even a medium grade.

Court: What is more expensive?

A. The glucose is cheaper.

Q. In other words, the molasses is more expensive?

A. Molasses, yes.

Q. So that as compared with the syrup, the cane syrup, maple syrup, sorghum, molasses, this is as to cost an inferior article—cheaper?

A. Yes sir.

Q. You have given your opinion that it was not proper to designate this article made from starch as a corn syrup. Do you know whether there is such an article made from the corn plant itself similar to the article made from cane or sorghum?

A. Yes sir. Such an article can be made and has been made.

Q. I wish you would just explain, doctor, what you know about that from your reading and general knowledge.

63 A. A true corn syrup made from the juice of corn stalks, either of sweet corn or of ordinary corn, can be evaporated down, and on account of its large sugar content will form a true syrup. That syrup was made by the aborigines of this country. It is reported by Cortez as one of the industries, if I may so call it, of the natives of Mexico, and Humboldt speaks of the manufacture of such a syrup by the inhabitants of Mexico and also of Peru. It was made in considerable quantities during the revolutionary war and

it has been made in greater or less quantities ever since. The United States department of agriculture has made numerous analyses of such syrup or of the sap of corn and has found that there is a large percentage of cane sugar in it. At the present time the manufacture of syrup has not been commercially practiced and the manufacture of sugar from that source has not been commercially practiced, altho' there is a company organized for the purpose, for the manufacture of machinery to accomplish this, and they claim that it can be commercially done, and according to the recent reports, since the byproduct, the stalk, can be used in the manufacture of paper pulp, which is getting scarce, the true corn syrup may become a commercial commodity.

Q. Produced in that way?

A. Yes sir.

Q. Do you know, doctor, what the practice has been until quite recently of the Corn Products Company and other manufacturers of glucose in this country of labeling their glucose when sold in barrels to the candy manufacturers?

A. The glucose so sold to candy manufacturers has, as far as I know, invariably been labeled, that is, stencilled, "Glucose," and it has been billed as glucose, it has been bought and sold as and for glucose.

Q. Now, you have stated that you thought in your opinion the term "corn" was not a proper term to be used in designating this article. What would you say as to the combination of the two "Corn Syrup"?

A. For glucose.

Q. Yes.

A. I should not consider it a proper name.

Q. Will you give your reasons in addition, if any, to those you have already given?

A. In the first place, while the term "syrup" is used in chemistry and to some extent technically as representing any thick liquid, some times in a more restricted sense as a "thick sweet liquid," I believe that the term "syrup" as describing a food product should be further restricted and should be confined to the syrup produced by the evaporation of the juice of sugar producing plants.

Q. I wish you would explain to the court the difference there is, if any, in the manufacture of this glucose from starch as compared with the product where you make sugar from cane or sorghum, as to the use in the two cases of any extraneous substance like an acid, in the producing of the one that is not used in the production of the other.

A. In what I have called true syrup from the standpoint of the food chemist these products are made by the direct evaporation of the sap of sugar producing plants, that is, by a mere driving off of water, and the solids contained in the syrup are practically the same as those contained in the original sap, only condensed, concentrated. There are slight changes that go on in this concentration; there is invariably a slight caramelization, that is, a burning of the sugar, and a slight inversion of the sugar, but there are no deep-seated

chemical changes. Whereas in the manufacture of commercial glucose from starch, it is necessary to use an extraneous substance, a mineral acid, for the production of the glucose, and the changes that take place in the starch are very deep-seated, chemically speaking.

65 Q. Now on the question of the wholesomeness or unwholesomeness of the article glucose when produced in this way, what do you say as to any chance or liability by reason of the necessity for the use of the acid of there being unwholesome results?

Mr. FAIRCHILD: We object to that, because that is immaterial under the statute.

Court: Why?

Mr. FAIRCHILD: Because the statute permits the sale of the article under the name of glucose and doesn't condemn it if it is sold under that name.

Mr. OLIN: We concede that, but we also contend that because of the way it is produced the consumer is entitled to know that it is glucose instead of some other syrup that isn't made in that way.

Mr. FAIRCHILD: That relates entirely to the name under which it is sold and not to the healthfulness of the article as it is sold.

Mr. OLIN: If there is that difference, if the article cane syrup, maple syrup, sorghum syrup, and so on, is made in one way, which does not require the use of an acid, and glucose can only be made by the use of acid, we have a right to show as we contend that by reason that this is a manufactured product in that way any liability there may be of unwholesomeness following from the manufacture of it as compared with the other article that isn't manufactured in that way.

Court: The court will adopt a somewhat liberal rule in permitting the introduction of evidence, and under that rule, this answer may be received.

Exception by defendant.

A. Because of the necessity of using a mineral acid in the conversion of the starch into glucose, any deleterious impurities present in mineral acids will find their way into the glucose. Glucose
65 has been manufactured which contained enough arsenic, due to the presence of arsenic in the acid used in its manufacture, to cause poisoning. Some years ago in Manchester, England, there was a case of wholesale poisoning, wholesale arsenic poisoning, which was traced to the consumption of beer that had been made from glucose or with glucose that contained arsenic, and the arsenic was traced finally to the iron pyrites from which the sulphuric acid was made.

Q. Now, is there any such liability as that incident to the manufacture of the cane or sorghum syrup?

A. No sir. There are also some who have contended that glucose manufactured in certain ways, perhaps due to overheating, may contain deleterious substance. But the great weight of evidence indicates that when glucose is properly prepared it must be regarded as a perfectly wholesome food product.

Q. Do you know, doctor, whether these standards that were prepared by the committee named by you and promulgated by the secretary of agriculture were in existence at the time of the enactment of chapter 557 of the laws of 1907?

A. Yes sir they were.

Q. And whether or not those standards have been changed or modified since?

A. They have not, because the right to establish standards was taken from the secretary of agriculture very shortly after these standards were promulgated.

Q. Have you got with you a true copy of the circular thus promulgated by the secretary of agriculture, known as Circular No. 19?

A. I have. And I know it is true because I read proof on it.

Q. You do know that that is correct, do you?

A. Yes.

Q. And it was from this circular that you read the definition of glucose and syrup, or refiners' syrup?

67 A. Refiners' syrup, yes sir.

Q. Did you also as a part of that work establish a standard for the term "syrup"?

A. Yes sir.

Q. And sugar cane syrup?

A. Yes sir.

Q. And sorghum syrup?

A. Yes sir.

Q. Maple syrup?

A. Yes sir.

Q. And sugar syrup?

A. Yes sir.

Q. Are the definitions of those syrups found on page 10 of this circular?

A. Yes sir.

Q. You also determined, did you, the standard for starch sugar, did you?

A. Yes sir.

Q. And that is found, is it not, on the same page?

A. Yes sir.

Mr. OLIN: We offer in evidence the standards as thus determined of those terms, and also of molasses, found upon the same page, is it not?

A. Yes sir.

Mr. OLIN: Molasses and Refiners' syrup, and then of the different syrups, and of starch sugar. Glucose has already been given.

Mr. FAIRCHILD: I object to that as incompetent. There is no power in this committee that has been referred to to give any definition of syrup or to give any definition that would bind a citizen of Wisconsin, and because the standards promulgated by the Secretary of Agriculture are not legal standards in the State of Wisconsin.

68 COURT: Received subject to objection.
Exception by defendant.

Q. Does this Circular No. 19 contain, Dr. Fischer, on the fourth page thereof a statement of the principles on which the standards are based?

A. Yes sir.

Q. Being nine in all of such different propositions, are there not?

A. Yes sir.

Q. You might state, apart from this statement if you will, doctor, generally the principles upon which the standards were determined as thus reported by this committee to the secretary of agriculture.

Mr. FAIRCHILD: I make the same objection to that, and there is nothing in the statute referring to these principles, in addition to the objection I made before.

Received subject to the objection.

Exception by defendant.

Q. Among the principles on which the standards published in Circular No. 19 are based are the following: The standards are expressed in the form of definitions with or without accompanying specifications of limit in composition.

Mr. FAIRCHILD: He is simply reading the printed standard. What is the use of taking the time.

Mr. OLIN: I am going to offer this page in evidence. Perhaps that is the shortest way of getting at it.

Mr. FAIRCHILD: Wouldn't it be a good deal shorter.

Mr. OLIN: Well, we offer page 4 in evidence that contains those principles.

Mr. FAIRCHILD: We object to it as incompetent.

Mr. OLIN: You don't object to it because we haven't got the original.

Mr. FAIRCHILD: No, I don't object to it for that reason.
69 I understand these are publications which are issued by the department, which may be used I think according to the statute.

COURT: Received subject to the objection.

Exception by defendant.

Page 4 offered and received in evidence is as follows:

"Principles on Which the Standards are Based.

The general considerations which have guided the committee in preparing the standards for food products are the following:

1. The standards are expressed in the form of definitions, with or without accompanying specifications of limit in composition.

2. The main classes of food articles are defined before the subordinate classes are considered.

3. The definitions are so framed as to exclude from the articles defined substances not included in the definitions.

4. The definitions include, where possible, those qualities which make the articles described wholesome for human food.

5. A term defined in any of the several schedules has the same meaning wherever else it is used in this report.

6. The names of food products herein defined usually agree with existing American trade or manufacturing usage; but where such usage is not clearly established or where trade names confuse two or more articles for which specific designations are desirable, preference is given to one of the several trade names applied.

7. Standards are based upon data representing materials produced under American conditions and manufactured by American processes or representing such varieties of foreign articles as are chiefly imported for American use.

8. The standards fixed are such that a departure of the articles to which they apply, above the maximum or below the minimum limit prescribed, is evidence that such articles are of inferior or abnormal quality.

9. The limits fixed as standard are not necessarily the extremes authentically recorded for the article in question, because such extremes are commonly due to abnormal conditions of production and are usually accompanied by marks of inferiority or abnormality readily perceived by the producer or manufacturer."

Q. It may be before we get through, doctor, essential to understand the meaning of the term "levulose." I wish, if you can, you would explain that term.

A. Levulose is a sugar that is contained together with dextrose in honey, in many acid fruits, and is produced together with dextrose in the inversion of sucrose, and it can be prepared also by the action of acid upon inulin.

Q. Why is it called levulose, if you know?

A. It is called levulose because it is levo-rotary; that is, it turns the plane of polarized light to the left in contradistinction from dextrose, which turns it to the right.

Q. And it is properly called a sugar, is it not?

A. It is properly a sugar.

Q. Doctor, I wish you would state a little more fully than you have the terms under which this product was known to the trade which we speak of here as glucose?

Mr. FAIRCHILD: When?

Mr. OLIN: Well, you may limit it any time you choose.

Mr. FAIRCHILD: I am not asking you to limit it, but your question didn't disclose.

Q. Well, right along up to the present time this present law of 1907 was enacted.

Q. When I first became connected with the dairy and food commission—

Court: Fix that date now.

A. January the 17th, 1903, we found on the markets of Wisconsin glucose mixtures containing over seventy-five per cent glucose and generally as high as ninety, sold under such names as Fancy Table Syrup, Golden Syrup, Crystal Drips, Rock Candy Drips, etc. The mixtures that were sold under the name of molasses contained less glucose, between fifty and sixty per cent. Quite a number of such mixtures, containing perhaps sixty

per cent of glucose and forty per cent of syrup were sold as pure Louisiana molasses. Others containing sixty per cent of glucose and forty per cent of sorghum were sold as pure sorghum. We found some samples of honey which consisted largely of glucose, one sample that was purchased by the Wisconsin state board of control—

Mr. FAIRCHILD: I object to that as incompetent and immaterial.

Q. You needn't go into that part, that particular one.

A. As high as eighty per cent of glucose I found in honey.

Q. The results of your work were reported in a general way in the report of the dairy and food commissioner, were they not?

A. Yes sir.

Q. Now, all this time how was this article glucose labeled that was being sold in barrels to the manufacturers of candy?

A. As glucose.

Q. And what do you say here about the use of the term corn syrup prior to this time?

A. Prior to about 1905 very few, if any, samples of glucose mixtures came to our laboratory labeled corn syrup.

Q. How were they labeled, the way you have indicated?

A. Yes sir.

Q. Did you have anything to do with the framing of the law of 1907?

A. Yes sir.

Q. Known as chapter 557 of the laws of that year?

A. Yes sir, I believe so, if that is the present law on syrup mixtures and glucose mixtures.

72 Q. Well, that is. Can you state when the change took place of labeling the product glucose sold to the candy manufacturers and labeling it Corn Syrup?

A. The change was made after the decision of the three secretaries—

Q. Well, that fixes the date. I don't care about going into that decision, but about what time was that, if you remember?

A. I think it was late in the fall of 1907 or early in the year 1908.

Mr. OLIN: It is agreed that February 13, 1908, is the date of that decision.

Q. It was at that time?

A. After that time.

Q. Now, you state, doctor, as I understand you have, that it is not proper in your opinion to speak of this product glucose, designated as a food product, under the name of syrup?

A. As I stated before, I believe that for food purposes, the term syrup should be restricted to the concentrated sap of sugar producing plants. I believe that that is the common understanding of the public of the word syrup, the consuming public; altho, as I stated before, the term syrup is used in chemistry and technically, some times even so broadly as to include any thick liquid. Thus in chemistry we speak of some substances as syrupy that could not by any means be used as food products. For example, concentrated

phosphoric acid, containing eighty-five per cent of phosphorus, is known as syrupy phosphoric acid. And if the definition of syrup is to include any thick sweet liquid, then glycerin ought to come under the head of syrup too. Then again the ordinary dictionary definitions, the definitions found in such dictionaries as Webster's International, the Century, and the Standard with one exception restrict the word syrup to saccharine solutions and solutions that do not contain any such substances as dextrine in large proportions, and in that one exception, which is the Standard dictionary, 73 the definition for syrup is first given as a thick, sweet liquid, then specifically, under 1, 2 and 3, the definition follows which restricts the word syrup to saccharine solutions.

Q. You think as a food product it should be so restricted?

A. I think as a food product it should be so restricted, yes sir.

Recess until nine o'clock A. M. December 29, 1908.

DECEMBER 29, 1908—Nine a. m.

Direct examination of Dr. FISCHER resumed by Mr. OLIN:

Q. Doctor, you stated you had something to do with the preparation of this law. What reason, if any, can you state was there for dividing this into three divisions—as a practical question in the administering of the law?

Mr. FAIRCHILD: Objected to as incompetent and immaterial. It is not a question of the administering of the law, but the construction of it.

COURT: Have you any authority upon that?

Mr. FAIRCHILD: No, I can't say that I have any particular authority. I think perhaps the law speaks for itself. I will get at it in another way.

Objection sustained.

Q. Are there text books on food analysis published in this country, doctor?

A. Yes sir.

Q. Are you familiar with them?

A. Yes sir.

Q. And what do you say as to the term that is applied to this product generally in the text books in this country?

Q. The term to which preference is given is the term glucose. That is, for the unmixed product I am speaking now. And altho 74 the text books, some of them at least, give the name corn syrup as a name under which glucose is also sold in this country, in the text proper of their book they use the term glucose right along, and in the official methods of analysis of the Association of Official Agricultural Chemists the term glucose is used exclusively as the name for this product.

Q. What do you say about the state food chemists in reporting upon this product?

A. They also use the term glucose practically exclusively, if not exclusively.

Q. Have you with you, doctor, any of the bills of this Corn Products Company for the sale of its products to candy manufacturers?

A. Yes sir.

(Paper produced and marked Exhibit A.)

Q. What is this paper you have presented, doctor, that has been marked Exhibit A for identification?

Q. That is a bill of sale which was given to me by Mr. Teckemeyer of the Teckemeyer Candy Company of Madison, Wisconsin, some time last summer. It was a bill of sale from the Corn Products Manufacturing Company, Chicago, for fifty barrels of Crystal 3 Star Glucose.

Q. What is the date of the bill?

A. June the 4th, 1907.

Mr. OLIN: We offer it in evidence.

By Mr. FAIRCHILD:

Q. I would like to ask a question or two before it goes in. Doctor, do you know whether this bill of goods was ordered by Mr. Teckemeyer to be shipped as glucose?

A. That was Mr. Teckemeyer's statement to me and my understanding.

Q. That he ordered it specifically to be shipped to him as glucose?

A. I think so. Mr. Teckemeyer used the word "glucose" right along.

75 Mr. FAIRCHILD: I object to it then as immaterial.

COURT: It may be received.

Exception by defendant.

Exhibit A is hereunto attached and made a part hereof.

By Mr. OLIN:

Q. Are you familiar, doctor, with the report of the National Academy of Sciences made some time in 1884 I believe?

A. Fairly familiar with it.

Q. That was a committee appointed by the National Academy of Sciences to investigate what, if you know?

A. To investigate the methods of manufacture and the deleteriousness or the wholesomeness of glucose and grape-sugar.

Q. Have you got any book with you that shows the exact words used in designating the committee or the objects rather for which the committee was appointed?

A. I have not. I have an abstract of this report written by one of the members of this committee, Professor Remsen.

Q. Of Johns Hopkins?

A. Johns Hopkins University for the Universal Encyclopedia, in which he merely speaks of it as the report on glucose.

Q. To refresh your recollection, wasn't it a committee appointed by the National Academy of Sciences to investigate in full the com-

position and properties of the article commercially known as glucose or grape-sugar?

A. I believe so, altho I have no book which gives that statement in that way.

Q. Do you know what the usage in England and Germany and France is as to the term that is used to designate this product?

A. The common term by which this product goes in these countries is starch-syrup. Glucose is used to some extent in England, or sometimes starch—glucose it is called, and in France the word glucose is used. In the official methods of analysis issued
76 by the French government they use the term glucose for this preparation. In Germany the term glucose has a different significance. The term glucose is there used either as designating a class of sugars of a certain composition as $C_6H_{12}O_6$, or more specifically, to designate one of that class, that is, dextrose.

Q. You are familiar with the work of Gerard et Bonn.

A. Yes sir.

Q. Is that a practical treatise of the analysis of food products?

A. It is. It is the most recent one I believe in the French language.

Q. That uses what term in designating this product?

A. Glucose.

Q. That is a French work?

A. That is a French work?

Q. Are you familiar with von Wagner's Practical Treatise on the Manufacture of Starch, Glucose, Starch Sugar and Dextrin—a text book?

A. Yes sir, I am familiar with the English or the American edition of it rather.

Q. There is an American edition of that, is there not?

A. Yes sir, published in 1881.

Q. And edited by Robert H. Kutter?

A. Yes sir, a practical glucose manufacturer and president of a glucose company.

Q. Of Philadelphia?

A. Yes sir.

Q. That designates the term we are dealing with here in what manner?

A. The title of the book is called "Glucose".

Q. The title of the whole book is?

A. The title of the whole book is "Starch, Glucose, Starch sugar and Dextrin" as it deals with the manufacture of these four
77 articles of commerce.

Q. Does it say anything about corn syrup?

A. I fail to find any reference to the term corn syrup in either the title or the body of the book, altho in a few places I believe the term starch syrup is used, though in most places glucose.

Q. The word glucose means itself what?

A. The word glucose comes from a Greek word meaning sweet.

Q. You speak of the term as having a different meaning in Germany?

A. Why, the term glucose in a restricted sense, chemically speaking, has the same meaning everywhere, and the word glucose, as I stated before, represents a class of sugars of a certain composition, $C_6H_{12}O_6$, to which both dextrose and levulose belong, and the synonym for dextrose is dextro-glucose. In Germany, as I stated, the term glucose is never used as applying to the product in question, altho it is used to some extent in England and to some extent in France, and, commercially, speaking, practically exclusively in this country as far as I know.

Mr. FAIRCHILD: What is used in this country?

A. The term glucose for the thick liquid that is made by the incomplete hydrolysis of starch.

Mr. OLIN: We offer in evidence at this point the first samples B and C, which are made a part hereof and to be returned to the supreme court herewith.

Q. Did you determine the percentage by your analysis of the dextrin that you found in these two samples?

A. I did.

Q. And what did you ascertain the facts to be?

A. I found in sample 1258 H. C. L., Exhibit C, marked T. H. Grady, by the precipitation method 25.3 per cent of dextrin. By the rotation method 23.6 per cent of dextrin.

Q. And as to the McDermott sample?

A. Sample marked 1259 H. C. L., also B. McDermott Sons,
78 I found it contained, by the precipitation method 26.06 per cent, and by the fermentation method 24 per cent of dextrin.

Q. Did you determine the mucilage of dextrin in the whole mixture in each case?

Mr. FAIRCHILD: He hasn't explained the term mucilage yet.

Q. Well, explain it, what is mucilage of dextrin.

A. I believe that I stated yesterday that mucilage of dextrin was officially recognized in the National Formulary as a solution in water of dextrin, composed of one part of dextrin and two of water.

Q. Now, with that explanation will you state the amount of mucilage of dextrin you found in the whole mixture in each case, taking the Grady sample first, the same as before?

A. Well, I calculated on a somewhat different basis from that formulary. I calculated the dextrin as dissolved in one-half of its weight of water, and according to that I had mucilage of dextrin 35.4 per cent in one instance and 36 per cent in the other instance. That would make quite a thick mucilage. It is two parts of the gum and one part of water.

Q. Then do I understand you, to make it plain, that of this whole body of the sample you found in one case 35.4 was made of mucilage of dextrin and in the other case 36 per cent.

A. Yes sir.

Q. I will ask you to state whether or not this mucilage of dextrin is in any sense a starch or a sugar?

A. It is not.

Q. And why do you say that?

A. Dextrin can in no sense be regarded as a sugar, either chemically or physically or organoleptically. And mucilage, I do not see how that could be recognized as a syrup—certainly not for food purposes. I don't think in any sense of the word, I don't think even physically—we must distinguish, very broadly speaking even, we must distinguish between substances having a mucilaginous nature and substances having a syrupy consistency.

Q. You can use syrup then in the sense of having a sweetness?

A. No, merely as far as consistency is concerned.

Q. Even on that basis of division you would make a distinction between—

A. Yes, in describing liquids we use such terms as oily, syrupy or mucilaginous without respect to the chemical nature of the substance. Thus in the United States Pharmacopœia oil of vitrol or concentrated sulphuric acid is described as having an oily consistency altho of course it is no oil, not related to oil. Glycerin is described as having a syrupy consistency, and concentrated phosphoric acid is described as having a syrupy consistency, altho of course we can not regard these substances as syrups.

Q. When you are speaking of food products you wouldn't?

A. Well, certainly not, or chemically speaking either.

Q. Would that same rule be true as to the use of the term milk, for illustration?

A. Why, yes, the term milk is defined in all dictionaries, I believe, as the secretions of the mammary glands of female mammals, but even that definition is much too broad to cover the food products known as milk, and in fixing a definition for milk as a food product the term can fairly be restricted to cow's milk, and not only to cow's milk but milk from healthy cows, and milk of a certain quality, containing a certain minimum of fat and of solid and further restricted to milk that is produced within a certain time, that is, excepting that produced within a certain time before and after calving. Then the term milk is also defined in the Century dictionary as including anything having the appearance of milk, as the juices of the milkweed and other similar plants whose juices are white in appearance. Or it would include, according to that definition, the milk of the cocoanut, under the unmodified term milk. And in the Century Dictionary where milk even includes the spat of the oyster before it is discharged, to say nothing of the use of the term milk to apply to any substance having a milky appearance, like the milk of lime, which is calcium hydroxide in suspension in water, and a good many other similar instances.

Q. What do you say as to the use of the term Golden Syrup as applicable to the product designated as glucose?

A. I do not think it is a proper term.

Q. Why do you say you think it is not applicable to glucose as an honest, fair or proper description of glucose?

Mr. FAIRCHILD: I object to that as not involved in this case in any way at all.

COURT: How is it involved here?

MR. OLIN: Well, it shows I think the necessity for this very law, that this should not be advertised as Golden Syrup, or a syrup at all, especially Golden Syrup.

COURT: Well, isn't the only question here the question of selling it as Karo Corn Syrup?

MR. OLIN: Well, that perhaps is true in this particular case, but not in their advertisements or in other cases of this company, they advertise it to show it as Golden Syrup, as a reason why people should buy it, and I want to show that that is a term applicable only to refiners' syrup.

COURT: How does that affect the position of this defendant before the court?

MR. OLIN: Well, as I said perhaps in the opening, we are trying this case rather broadly as a test case. If we are to be limited—

MR. FAIRCHILD: I don't wish to limit it in any sense of the word as to corn syrup or Karo Corn Syrup. I want the testimony to be just as broad as Mr. Olin can possibly make it on that, but the use of other terms is another proposition.

MR. OLIN: We have one of your own cans on which that term is used, "Golden Syrup."

MR. FAIRCHILD: "Golden Corn Syrup"?

MR. OLIN: No, "Golden Syrup."

MR. FAIRCHILD: Applying to corn syrup?

MR. OLIN: Yes, applying to corn syrup.

COURT: I want to permit you to take any testimony that may be material to the issue. It doesn't appeal to me now that it is material, but I will take the testimony and later consider whether it has any bearing upon the controversy in my determination.

Exception by defendant.

A. The term corn syrup has long been used as a synonym, especially in England, for refiners' syrup or some similar byproduct in the manufacture of sugar.

Q. Before passing to this next subject, have you with you dextrin that you took from these substances that were sold?

A. Yes sir, I have a sample of dextrin that I isolated from sample 1258 H. C. L.

MR. FAIRCHILD: Is that Grady's or McDermott's?

A. Grady's.

Q. You may produce it if you will?

A. And also a solution of dextrin in water, and also a solution of some dextrin from sample 1259 H. C. L., a solution in water.

MR. OLIN: Now, the first we will have marked for identification is Exhibit D. Now what is Exhibit D?

A. Exhibit D is a sample of dextrin which I isolated from sample 1258 H. C. L.

Q. Is that in any sense a sugar?

A. No sir.

Q. And if dissolved in water it makes what?

82 A. A mucilage.

Q. Did you do that?

A. I have a sample here dissolved in water, a large amount of water, it is not a very heavy mucilage on that account; if I used less water or more dextrin, it would be correspondingly heavier in consistency.

Mr. OLIN: I will have this marked for identification Exhibit E.

Q. Now, what is Exhibit E?

A. Exhibit E is a solution in water of some dextrin from Exhibit D.

Q. Now that's mucilage, is it?

A. That is a mucilage, mucilage of dextrin.

Q. Is that used for instance in the preparation of postage stamps?

A. It is a mucilaginous substance in most commercial mucilages now, and after it is applied moist and dried it is the gummy substance on the back of postage stamps and labels, etc.

Q. Now what is Exhibit F?

A. Exhibit F is a solution in water of some dextrin which I obtained from sample 1259 H. C. L. The bottle containing most of the dextrin broke and I rescued only a small portion and dissolved it.

Mr. OLIN: We offer these exhibits not heretofore offered in evidence, running down to and including Exhibit F, which exhibits are made a part hereof and to be returned to the supreme court herewith.

Mr. FAIRCHILD: What is the purpose of this line of testimony? I object to it because it is purposeless.

Mr. OLIN: We want to show by testimony and ocular demonstration also what this product means, and that there is an element in it that is in no sense a sugar or syrup.

Mr. FAIRCHILD: What materiality is there to that when it is permitted to be sold under that name by the statute?

Mr. OLIN: We contend that it isn't permitted to be sold as corn syrup.

83 Mr. FAIRCHILD: You are describing glucose now.

Mr. OLIN: Yes, and we are describing it for the purpose of showing that it should be designated as glucose and not something else, and that the consumer is entitled to know what it is, and we have the right to presume that the consumer knows, or at least can ascertain what glucose is. It is simply showing the manufacture of the article, the same as in an oleomargarine case.

Mr. FAIRCHILD: Well, I am simply inquiring your object in doing it. I am not objecting to it.

Q. Now, doctor, I will ask you to state what that substance is that is in Exhibit marked number 1?

A. This is a sample of glucose of forty-two degrees Baume. That represents its specific gravity.

Q. Is that the color and consistency of what is known in the market commercially as mixing glucose?

A. Yes sir.

Q. And was purchased from what company?

A. It was obtained from Sprague, Warner & Company?

Q. Of Chicago?

A. Yes sir.

Q. Doctor, I will show you a bottle marked for identification Exhibit 1a and you may state what that is?

A. This is a sample of confectioner's glucose. It is of heavier body. I believe it is forty-three degrees Baume. And it is bleached or it contains sulphur dioxide.

Q. I show you now, doctor, a bottle marked for identification on the outside as 1b. What is that?

A. This is a sample of confectioner's glucose which I obtained directly from a barrel tapped in my presence at the Teckemeyer Candy Company in this city.

Q. With what label on the barrel?

84 A. The label on the barrel?

Q. Was it this one we had here?

Mr. FAIRCHILD: I object to that, your honor, as not competent. We don't know anything about that article at all, where it came from or anything about it, and I don't see how it can possibly be involved in any inquiry that is material here.

Mr. OLIN: I simply want to identify it now.

Court: He may answer.

Exception by defendant.

A. The stencil on the barrel from which that sample was taken was as follows: "Corn Products Manufacturing Company U. S. A. Confectioners' Crystal." Then three marks indicating stars, 3 star I suppose. 43 in numbers, Glucose U. S. Standard. Guaranteed under Food and Drugs Act June 1906. Serial Number 311. Batch U. Z. 221." Then a capital U, capital C. I might state that when I received that sample some time last summer it was colorless, like Exhibit 1.

Q. It has become somewhat discolored since?

A. Yes sir.

Q. While we are on that, do you know how this light color is produced, of the mixing glucose shown in Exhibit 1?

A. No sir, I do not. It was formerly produced by means of a sulphurous dioxide, as I understand it, but since then samples of glucose that we have examined contain no sulphur dioxide, and I don't know how they get rid of the color.

Q. I show you now a bottle marked for identification Exhibit 1c. You may state what that is.

A. Exhibit 1c is a sample of dextrose or dextro-glucose, manufactured by C. A. F. Kalbaum of Berlin.

Q. You spoke yesterday of getting, as I remember, a starch sugar if you followed the process beyond a certain point instead of getting glucose?

85 A. Yes sir.

Q. Would you get this product which you hold in your hand?

A. Not directly. That would necessitate considerable purification of the commercial starch sugar.

Q. Then this is a finer product?

A. It is supposed to be chemically pure, or as near chemically pure as you can obtain it, dextrose.

Q. It is in the form of crystals?

A. Yes sir.

Q. I now show you a sample bottle marked for identification Exhibit 1d, and what is that?

A. Exhibit 1d is a sample of malt sugar or maltose manufactured by the same firm.

Q. I show you a bottle marked for identification Exhibit 2, and what is that?

A. Exhibit 2 is a sample of refiners' syrup obtained from Sprague, Warner & Company as good grade refiner's syrup.

Q. I hand you now a bottle marked for identification Exhibit 3. You may state what that is?

A. Exhibit 3 is a sample of refiner's syrup of Sprague, Warner & Company as medium grade refiner's syrup.

Q. Both of those are the same syrup, one being a better grade than the other?

A. Yes sir.

Q. I show you now a bottle marked for identification Exhibit number 4. State what that is?

A. Exhibit number 4 is composed of a mixture of eighty-five per cent of Exhibit number 1 and fifteen per cent of Exhibit number 2.

Q. That is, mixing up the glucose, the first number 1 and the better grade of refiner's syrup?

86 A. Yes sir.

Q. In the preparation of eighty-five of glucose and fifteen per cent of refiner's syrup?

A. Yes sir.

Q. And you get that darker color?

A. Yes sir.

Q. I now hand you a bottle marked for identification Exhibit number 5. You may state what that is?

A. Exhibit number 5 is a glucose mixture composed of eighty-five per cent. of Exhibit number 1, or rather the same, glucose of the same sort, and fifteen per cent of refiner's syrup identical with Exhibit number 3.

Q. The only difference between number- 4 and 5 is then that in one case you used the better grade of refiner's syrup, and in the other the second grade?

A. Yes sir.

Q. I hand you now a bottle marked for identification Exhibit number 6 and you may state what that is.

A. Exhibit number 6 is mucilage of acacia made by dissolving gum acacia, or gum arabic as it is also known, in water.

Q. There is no sweetening to that at all?

A. No sir.

Q. I show you now number 7, marked for identification Exhibit number 7, and what is that?

A. Exhibit number 7 is mucilage of acacia which has been sweet-

ened with an artificial sweetener, namely, saccharine, a coal tar product.

Q. That is not a sugar, but it is a very sweet product.

A. It is not a sugar. In fact it has absolutely no food value.

Q. But its relative sweetness to sugar is what?

A. In its purest condition it is said to be 550 times as great as sugar.

87 Q. I show you bottle marked for identification Exhibit number 8. You may state what that is?

A. Number 8 is a solution of commercial dextrin in water. It is in fact mucilage of dextrin.

Q. Is that the same kind of substance that you have already described as having found in these articles?

A. I will not say that it is exactly the same. It is similar, because dextrin is not a definite chemical substance, but various dextrans consist of mixtures, that is, various commercial dextrans consist of mixtures of different substances known as dextrin. We have a dextrin that is still somewhat closely allied to starch; amylo-dextrin, erythro-dextrin. Another one known as achio-dextrin.

Q. Would you say that any of these contain syrup or sugar?

A. None of them are sugars.

Mr. FAIRCHILD: None of them are sugars?

A. No sir.

Q. I show you now a bottle marked for identification Exhibit Number 9. What is that?

A. Exhibit number 9 is mucilage of dextrin sweetened with saccharine.

Q. The same as the previous article excepting sweetened with this coal tar product?

A. Yes sir.

Q. I show you now a sample marked for identification Exhibit number 10. You may state what that is?

A. Exhibit number 10 is a solution containing eighty-five per cent of phosphoric acid, known commercially as syrupy phosphoric acid.

Q. That term syrupy is used in describing it?

A. On account of its consistency.

Q. I show you now a bottle marked for identification Exhibit number 11. You may state what that is.

A. Exhibit number 11 is a sample of glycerin.

88 Q. I show you now a bottle marked for identification Exhibit number 12. You may state what that is.

Q. Exhibit number 12 is a sample of cane syrup obtained from Sprague, Warner & Company.

Q. Is that the ordinary color of cane syrup?

A. It is the ordinary color, and it also has the appearance of cane syrup in which some of the sugar is crystallizing out there.

Q. That would make it look a little darker?

A. A little turbid at least.

Q. I show you now a sample marked for identification Exhibit number 13. You may state what that is?

A. Exhibit Number 13 is a sample of sorghum syrup obtained from Sprague, Warner and Company.

Q. Would what you said about the other apply to this, about its turbid appearance?

A. Yes sir.

Q. I now show you a sample marked for identification Exhibit Number 14. You may state what that is.

A. Exhibit Number 14 is a sample of maple syrup produced by one of our inspectors, Mr. Van Duser, on his own farm from his own trees.

Q. I now show you a sample marked for identification Exhibit number 15. You may state what that is?

A. Exhibit number 15 is a portion of sample 1259 H. C. L.

Received in evidence and made a part hereof.

Q. The McDermott sample, isn't it?

A. Yes sir.

Q. I now show you a sample marked for identification Exhibit number 16. You may state what that is.

A. Exhibit number 16 is a portion of sample 1258 H. C. L. the Grady sample?

Received in evidence and made a part hereof.

Q. Samples four and five, were those you made in the way you have indicated?

A. Yes sir.

89 Q. And samples 15 and 16 are from the articles sold?

A. Yes sir.

Q. And 14 is of the maple syrup?

A. Yes sir.

Q. And maple syrup is placed in the middle here and the two articles sold on the outside and the two you produced by mixing in the ratios you stated from Sprague, Warner & Co. to your left, that is right, is it?

A. Yes sir.

Q. Can you state, doctor, the proportions, I think you haven't stated yet, of the ingredients that you actually found in these two samples you analyzed?

A. I can not exactly state the proportions, but I can say that the samples both contain approximately eighty-five per cent of commercial glucose of forty-two degrees Baumé strength and fifteen per cent of refiner's syrup product.

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, are you familiar with the manufacture of glucose?

A. Not personally, only generally, from a reading knowledge and from conversation with those who have seen glucose made.

Q. You have never been in the factory so as to observe the process of manufacture?

A. No sir.

Q. What you learned of it then has come second-hand entirely?

A. Yes sir, you may call it so.

Q. Are you familiar even from books with the method of manufacture?

A. I have read them, but I haven't them in mind so I would want to repeat them here as an expert.

Q. Do you know what the first process is in the manufacture of glucose from corn?

90 A. The first process, as I said before—I don't want to pose here as an expert on the manufacture of glucose—the first process, as I remember it, is the steeping of the corn.

Q. For what purpose?

A. For making possible the separation of the starch from the other ingredients of the grain, the corn.

Q. There are no acids used in doing that, are there?

A. Why, formerly acids were used. I don't know but what—

Q. I mean now as it has been manufactured and has been manufactured during the last five or six years?

A. Yes sir, sulphuric acid is used to the best of my knowledge.

Q. In bringing out the starch from the corn?

A. In the steeping, to prevent fermentation, yes sir.

Q. Is the starch produced in the manufacture of glucose in the form that it is commercially used?

A. As I understand it, a purified starch is manufactured and then a paste is made out of it.

Q. I mean is the starch that is produced in the manufacture of glucose in the corn in the condition that it is in when it is put upon the market as starch?

A. I don't suppose it is ever dried. I see no necessity for drying it.

Q. I am not asking you about the necessity. I am asking you about the fact.

A. Well, do you refer to the condition as to its being moist or dry?

Q. Yes, and in the form that it is sold commercially?

A. I believe it is used in the moist condition, but otherwise it is practically identical as far as I know with the starch as put on the market, corn starch.

Q. Well, the manufacture of glucose is a continuous process, is it not, from the kernel of corn to glucose?

91 A. Yes sir. But the difference between a moist starch and a dry starch—

Q. I am not asking you for any argument at all, doctor.

A. All right.

Q. Now, when the acids are applied—and I will ask you there what acid is used in the manufacture of glucose?

A. To the best of my knowledge in this country at the present time, hydrochloric acid or muriatic acid.

Q. Well, that has been so, has it not, for a number of years?

A. I believe so, in this country.

Q. Well, in the manufacture of glucose will you tell us whether or not the corn by the application of the acid is first reduced into the form of dextrin?

A. As to the exact method of decomposition of the starch there is a difference of opinion, and I don't want to—

Q. No, I am asking you a specific question now, doctor?

(Question read.)

A. Well, in the first place, corn is not used, but corn starch. You refer to the starch I suppose. The corn is not changed into dextrin, but the corn starch.

Q. After you get it into the condition of this starchy substance you have referred to?

A. Well, corn starch is changed into dextrin. The other ingredients of starch can not be changed into dextrin.

Q. Now do you mean to say that by the application of acid the corn starch, as you call it, is reduced into dextrin?

A. I wouldn't use the word reduce. It might perhaps, broadly speaking, be used.

Q. Converted into dextrin?

A. I wouldn't want to say whether you could stop the process at any point and get only dextrin. I think not. I think you would get at any point that you might want to stop the process a mixture of dextrin and maltose and dextrose.

92 Q. Will you say that you wouldn't get dextrin entirely?

A. I will not say that, because dextrin can be manufactured from starch by roasting starch, heating starch in the presence of a small amount of muriatic acid or nitric acid or exalic acid, but that dextrin is never pure as far as I know and there is always some dextrose with it.

Q. I understand you to say that you do not know whether it is first converted by the use of acid into dextrin?

A. It is my opinion that the process could never be so regulated that you would not get some dextrose and maltose with the dextrin.

Q. Do you know that in the manufacture of glucose from corn that the second stage is not maltose?

A. As I said before, there is a difference of opinion as to how starch is converted by the action of acid—

Q. Now, I want an answer to my question.

A. I must preface my remark with that, that there is a difference of opinion, and to my knowledge on that subject, I have made no experiments, it is based entirely upon my reading knowledge.

Q. Read the specific question and I want an answer to my question.

MR. OLIN: You are making this witness your own witness.

COURT: I think it is.

(Question read.)

A. I was going to answer that by first explaining my position as an expert on that subject.

Q. I want an answer yes or no to that question.

COURT: I think that can be answered by yes or no.

A. I do not know of my own knowledge.

Q. Now, will you say that the third stage is not a conversion of maltose into dextrose?

A. I don't know of my own knowledge.

Q. Do you know why in commercial glucose in the syrupy
93 form you find dextrin in it?

A. Because the process is not carried on far enough to change the dextrin into dextrose.

Q. Why?

A. It is not intended to be carried on far enough.

Q. That's right? Now I ask you why is it not carried on farther than it is?

A. If it were carried on farther you could not obtain a commercial product of the density in which glucose appears on the market, because the dextrose would crystal-ize out.

Q. Then in order to keep it in a syrupy form you must retain the dextrin, must you not?

A. Using the term syrupy as describing the physical condition, I would say yes.

Q. Now, you say that dextrin is not a sugar?

A. Yes sir.

Q. Will you say that all the sugary product in the starch of corn is not contained in the first stage of the manufacture of glucose, in dextrin entirely?

A. Will you please read that question.

(Question read)

A. No more than it is in the starch—just as much as it is in the starch and no more or less.

Q. Then all the sugary elements that you find in the starch is at one stage in the manufacture of glucose to be found entirely in dextrin, isn't it?

A. There is no sugar element in starch or in dextrin either. In the breaking down of the complex molecules of starch in producing the dextrin, and then perhaps further on, the dextrose, certain chemical changes take place which are not understood, and whether or

94 not by a splitting off of a certain particle of that complex molecule, or by the addition of water, etc. what changes take place I don't know, and whether that complex molecule of sugar is present in the starch or not I don't know and nobody else knows.

Q. Now doctor, you understand what I mean? You have the sugary element in starch, haven't you?

A. I wouldn't call it a sugary element, no sir.

Q. Well, you get sugar out of starch, don't you?

A. Yes sir.

Q. It must be in there?

A. Not as sugar, no sir.

Q. Not a sugar, no, but I say the sweet element, the sugary element, is in there to be taken out by the process of manufacture?

A. I don't see how you can look at it that way at all.

Q. Well, is that what you mean to be understood then when you say that dextrin has no sugar in it, it is not a sugar—you say it is not a sugar in the same sense that starch is not a sugar?

A. Yes sir.

Q. You don't mean that it doesn't contain the element of sugar?

A. I don't mean to say that it don't contain the carbon and hydrogen and oxygen that go into the making of sugar, at least in part.

Q. And you don't mean to say, doctor, that you can't take dextrin and make dextrose out of it?

A. I have stated several times that you can, but that dextrose is not contained in dextrin and it gives no peculiar sugary qualities to the dextrin, as little as it does to starch.

Q. Well, can't you take dextrin and make sugar out of it and have no residuent left?

A. Why, certainly, by a deep-seated chemical change. You can take a diamond and burn it up and get carbon dioxide.

Q. I don't want any argument; I simply want my questions answered. Now do you know that that chemical process is not carried on in the manufacture of glucose—the conversion of dextrin into glucose or dextrose?

95 A. I have stated a number of times that by the treatment with acids dextrin, by taking up the elements of water, can be changed into dextrose, but that dextrose is not contained in dextrin.

Q. Well, if you can turn dextrin wholly into dextrose, dextrose must be contained in dextrin?

A. No sir. You can only do that by a very deep-seated chemical change.

Q. But the elements must be contained in it?

A. The carbon and the hydrogen and the oxygen, with the exception of the additional ones that come from water, are contained in it. In what grouping I don't know, and nobody else knows.

Q. Now, do you say that there is no nutrition at all in dextrin?

A. I don't say that.

Q. Glucose, as it is ordinarily called by that name, has two forms, hasn't it, a sugary form and a liquid form?

A. Commercially speaking, yes, glucose has two forms, a liquid form and the solid form, altho' in this country the name glucose is used exclusively for liquid form and never for the solid form.

Q. You have explained about the possibility of acid being left in glucose in the process of manufacture. Do you know that that is ever so?

A. I did not want to leave the impression that there was any acid left in glucose, because I know that the acid is neutralized with an alkali and is left in the form of a salt, and if, as I believe they always do now in the process of manufacture, use sodium carbonate for neutralizing purposes, the acid would be changed; if muriatic acid is used the acid would be changed into salt.

Q. And that is all carried off, the salt that you refer to?

A. That remains in solution.

Q. But it doesn't remain in the glucose?

A. Yes sir. What I had reference to when I spoke of impurities were impurities of arsenic contained in the acids.

96 Q. Now, do you mean that nowadays there is any arsenic contained in glucose, as it is manufactured in America?

A. There is always a possibility, because arsenic is very frequently a contamination of mineral acids, and therefore unless precautions are taken to analyze the acids to insure that they are free from arsenic there is always danger of getting arsenic into the glucose.

Q. Do you know that in the process of manufacture those precautions are not taken?

A. Why, I didn't know that anybody in particular had a monopoly on the manufacture of glucose in this country.

Q. That was not my question.

(Question read.)

A. I should think they might be taken by reputable firms, but I don't know but what some firms might not take precautions. Certainly cases have occurred.

Q. I will ask you whether that is true or not, whether they do take those precautions?

A. Well I don't know everybody who makes—I am not sure that I know everybody who makes glucose in this country.

Q. Then as a matter of fact, you haven't any knowledge on that subject, have you, as to what precautions are taken by the manufacturers of glucose to see to it that no deleterious substance is left in the glucose?

A. I have no personal knowledge, no sir.

Q. You have never discovered, have you, any arsenic in glucose?

A. I have never tested glucose for arsenic.

Q. Well, in either one of these two samples did you find anything that was deleterious to the health or poisonous in any way?

A. I did not make any of the tests to determine whether there was anything deleterious in the samples, or not.

97 Q. So you wouldn't undertake to say then that there was anything deleterious or poisonous in these samples?

A. No sir.

Q. You don't mean to be understood that you personally ever knew of arsenic or any poisonous substance being found in glucose as manufactured in the United States?

A. Not to my personal knowledge.

Q. Now as to this single illustration that you gave us or incident that you gave us, in regard to arsenic being found in beer in England, how many years ago was that?

A. As I recall it, that was somewhere between 1894 and 1898. I haven't looked it up, but if my recollection serves me right it was between the years 1894 and 1898.

Q. I suppose you don't know even from your reading just how that arsenic happened to get in there?

A. Yes sir, I do.

Q. How do you understand that it got in there?

A. I believe I stated yesterday that it came from the iron pyrites which contained arsenic. The iron pyrites that were used in the manufacture of the sulphuric acid contained arsenic and it got into the sulphuric acid and from there into the beer.

Q. You don't know, however, that sulphuric acid has been used in

this country at all in the manufacture of glucose in the last eight or nine years?

A. Sulphuric acid is always used in the manufacture of hydrochloric acid, and if the sulphuric acid contained arsenic it would find its way into the hydrochloric acid, so it wouldn't make any difference which acid you used if there was arsenic originally in there, unless it had been removed.

Q. That is supposed to be a foreign substance, isn't it, one that you wouldn't ordinarily find in hydrochloric acid?

98 A. You are apt to find it in greater or less quantities in commercial hydrochloric acid—always find it—you might say always find it in ordinary commercial hydrochloric acid.

Q. But I don't suppose you know personally what precautions are taken in the matter of eliminating anything of that kind, if there should be anything in the hydrochloric acid that's used in the manufacture of glucose?

A. No sir, I don't know.

Q. Do you mean to say that the article which has been sold in this case as a table syrup has not been known as corn syrup in the state of Wisconsin by the trade and by the consumer for a number of years?

Mr. OLIN: That is objected to as immaterial.

Court: He may answer.

Mr. OLIN: I won't repeat that objection. I suppose it is not necessary to interpose it to that line of proof.

A. Why, personally I don't remember of having heard—are you referring to Karo Corn Syrup?

A. I am referring to corn syrup, whether you call it Golden Drips or Crystal Drips or Karo Corn Syrup, or what kind of corn syrup, I am talking about corn syrup—sold as corn syrup.

A. I don't remember personally of having seen any put on the market in Wisconsin under that label previous to 1905. It may have been. I testified yesterday that samples so labeled didn't come to our laboratory.

Q. That would be the only way you would know of it, would it?

A. In all probability, yes.

Q. Didn't you see advertisements of it in the newspapers?

A. I can not remember. I don't remember now.

Q. I don't suppose you do the buying in your family, of syrups?

A. No, I happen to be a bachelor.

99 Q. So far as you know then, this article, corn syrup, with one fancy name or another applied to it, has been on the market for five or six years at any rate in Wisconsin?

A. I could not deny that nor affirm it.

Q. And since 1905 you have known, have you not, that it was very extensively on the market in Wisconsin?

A. When the law was passed requiring the labeling of syrups in this state either as glucose or glucose mixtures or corn syrup a large number of brands that were formerly sold as Fancy Table Syrup and Rock Candy Drips and Honey Drops, etc., were sold subsequently as corn syrup.

Q. And extensively advertised as such too in Wisconsin?

A. I don't remember any advertisement except the Karo Corn Syrup in those years.

Q. Well, that has been very extensively advertised, has it not—well as far back as 1903, in Wisconsin, Karo Corn Syrup?

A. I don't remember just when I first commenced reading the advertisements. My recollection is about 1905. It may have been previous.

Q. Well, from 1905 on to the present time you do know that a table syrup has been sold under the name of corn syrup very extensively in Wisconsin?

A. Yes sir, from the fall of 1905 when the law went into effect.

Q. From the fall of 1905 on?

A. Yes sir.

W. Now doctor, you spoke about this not being properly a syrup—called a syrup. Have you ever in any way been associated with or connected with the National Association of State Dairy and Food Departments?

A. Yes sir.

Q. In what capacity?

100 A. I am a member and I also am chairman of a committee on standards of that association.

Q. Has the association prepared standards of its own distinct from those of the federal government?

A. At our annual meeting at Jamestown in 1907 we adopted all of the standards given in Circular No. 19 and a few additional ones.

Q. That is, at Jamestown?

A. Yes. These standards were readopted with some slight modifications at Mackinac this summer.

Q. Well, was anything said in your work there at Jamestown about corn syrup?

A. To what work do you refer, to the meeting of our committee or the meeting of our association?

Q. Well, in the reports of the proceedings of your association there was the name corn syrup applied to this article you call glucose?

A. Dr. Wagner I believe read a paper on the subject of Glucose vs. Corn Syrup, or whatever it was entitled. I don't remember the title.

Q. When did your committee first establish standards for the National Association of State Dairy and Food Departments?

A. The first standards that were adopted by this association were adopted at Jamestown in 1907.

Q. Well, was a committee appointed to prepare standards before that time?

A. Yes sir, a committee had been in existence for a number of years before that time, a committee of our association.

Q. Had your committee prepared standards and suggested them to any previous meeting of the national association?

A. No sir, our committee never had. The chairman of our committee in 1905 at our Portland meeting presented some standards

101 which were directed—no, they weren't even directed to be printed. He tried to present standards, but the rest of the committee refused to sign the standards. That was the end of it.

Q. And they were never published?

A. No sir, not those, not by our association.

Q. Who constituted that committee?

A. At that time?

Q. Yes.

A. Dr. Eaton of Illinois at that time was chairman.

Q. Who was he?

A. He was at that time State Analyst for Illinois. And Dr. Winton was a member.

Q. Where was he from?

A. Dr. Winton was the chemist of the Connecticut Agricultural Station. I was the only other member present at the Portland meeting, of that committee.

Q. Who were the members of your committee, the balance of them?

A. I really don't remember.

Q. Do you know a man by the name of E. F. Ladd of North Dakota?

A. Yes sir.

Q. What was he and—what was he?

A. E. F. Ladd is the chemist of the agricultural experiment station of North Dakota and state chemist of North Dakota.

Q. Do you know P. L. Hobbs of Ohio?

A. Yes sir.

Q. He was a member of that committee, was he not?

A. Yes sir.

Q. Who is he?

A. Dr. Hobbs is one of the chemists who had worked for the Ohio dairy and food commissioner, at least was doing work at that time.

Q. Did you say that the report on food standards suggested by the committee on revision from the National Association of State Dairy and Food departments was presented to the meeting at Portland?

102 A. No, it was not.

Q. In 1905?

A. No, it was not. The chairman of the committee—

Q. What was his name?

A. Dr. Eaton wanted to have them presented as the report of our committee, but none of the other members of the committee ever saw them until a couple of days before the report was to be handed in, and Dr. Winton and I, who were the only other members of the committee present, refused to sign the report and it never came before the association.

Q. Did you see that report?

A. I did, a few days before the meeting.

Q. Did you ever see a publication of it?

A. Dr. Eaton had quite a number of copies printed, I don't know

at whose expense; not with the knowledge of any of the other members of the committee.

Q. Who was the compiler and editor of the journal of the proceedings of this meeting, doctor?

A. Why, the person who had a contract with the association for the printing of the proceedings previous to this meeting was H. B. Meyers of Chicago.

Q. Yes, Herman B. Meyers.

A. I believe that is his name.

Q. Now, I will call your attention to Exhibit 17. Will you look at page 8 of this Exhibit 17, which is entitled: "Standards and Definitions of Food Products for the National Association of State Dairy and Food Departments Suggested by the Committee on Revision of Food Standards, Edward M. Eaton, chairman, Illinois; A. G. Winton, Connecticut; E. F. Ladd, North Dakota; P. L. Hobbs, Ohio; Richard Fischer Wisconsin", and state whether this page 8 was included in the report prepared by the chairman of that committee?

A. Before I answer that, your honor, may I say something
103 in regard to heading of this—

COURT: You can do that afterwards.

Q. Just answer the question now.

A. What standards do you refer to?

Mr. OLIN: Page 8, whether that was in the report as suggested by the chairman of the committee?

A. Page 8 is part of a paper—

COURT: The question was whether that page 8 was in the report suggested by the chairman of the committee?

A. Yes, suggested by the chairman of the committee, yes sir.

Q. You have seen this publication, have you, before this, Exhibit
17?

A. Yes sir.

Q. Where did you see it?

A. I have stated before that I saw a copy of it a few days before the Portland meeting.

Q. Will you say that that report was not made to the Portland meeting of the chairman of your committee?

A. I will say positively that it was not.

Q. Do you know whether these standards had in any way been promulgated by the association?

A. I know they were not.

Q. Did you have nothing to do at all with the preparation of those standards?

A. Not a thing. I didn't know anything about them until a few days before the meeting, and therefore refused to sign the report of Dr. Eaton, together with Dr. Winton.

Q. Dr. Eaton is quite a capable man, is he not, professionally?

A. I do not consider him so. Capable in some ways.

Q. Well, in that report suggested by Dr. Eaton this product
104 was called corn syrup, wasn't it?

A. Yes sir, I believe. I haven't that very clearly in mind. I presume so.

Q. You can read what is said there on the top of that page in regard to whether this article is a corn syrup?

A. I find the statement, "Glucose mixtures"——

Mr. OLIN: I object to any reading from that document.

A. What product do you refer to?

Q. The product we have been discussing here, glucose, or corn syrup, whichever you may care to call it.

Q. I would hardly say that glucose under those proposed standards would be called corn syrup. The statement in these proposed standards is "Corn or glucose syrups are preparations of glucose." So I don't suppose it is intended to include glucose by itself.

Q. What is the next statement?

A. The next: "Glucose is a product of the action of acid on starch."

Q. You didn't start with the first statement, did you?

A. "Glucose mixtures are syrups made from glucose and other sugars."

Q. "Are syrups made from glucose."

(No answer.)

Q. In the first two circulars promulgating standards by the United States agricultural department the name corn syrup was used as synonymous with the word glucose, was it not?

Objected to as immaterial.

Objection overruled.

A. I believe so. I suppose you refer to the standards promulgated or established by the United States secretary of agriculture?

Q. Yes.

A. Under the provision of the agricultural appropriation act?

Q. Yes. Now was the first one of those circulars number 10?

A. I am not quite sure, I have in mind Circular Number-
105 10, 13 and 17; I am not sure about 10 though.

Q. That is right, 10, 13 and 17. I see you only mention two in this one.

A. In Circular No. 19 the statement is made that those standards are to take the place of those in Circulars 13 and 17.

Q. Doctor, you are too anxious apparently to make an argument here. Now just please answer my questions.

A. I just wanted to set the question of standards right.

(Question read.)

A. I am not certain as to that. There seems to be something wrong somewhere with the numbering of those circulars.

Q. I will eliminate the numbering then. Will you please state when the first standards were established and promulgated by the secretary of agriculture?

A. I couldn't tell you the date, and I am not sure as to the number.

Q. Approximately what date?

A. I believe about 1903 I saw them for the first time.

Q. And in that promulgation I understand that corn syrup was used as synonymous with glucose?

A. By referring to the standards I can tell you best.

Q. All right, you may refer to them if you have them here.

A. I only have a reprint of them. I think it is a correct reprint. (Referring to paper.) Yes sir.

Q. Now, I suppose in that reprint it will tell you the number of the circular, won't it, and the date of it?

A. No, that is not given.

Q. Neither date nor number?

A. Yes, the date is given. November 20, 1903.

Q. Now that was repeated and repromulgated later on, was it not in Circular No. 13?

Mr. OLIN: Same objection to all this line of testimony, receiving these standards.

106 COURT: He may answer.

A. I believe so.

COURT: All testimony relating to the standards previous to Circular 19 may be taken as if the same objection had been made and the same ruling.

Q. You have received the publication sent out by the agricultural department, have you not, embodying these first standards—Circular No. 10. Just look at that and see whether that isn't one of them (shown witness).

A. I think so.

Mr. OLIN: Which circular is that?

Mr. FAIRCHILD: This is Circular No. 10, purports to be promulgated by the secretary of agriculture November 20, 1903. I refer you to page 8 and offer in connection with his cross-examination a definition under: "Glucose syrup or corn syrup is glucose unmixed or mixed with syrup or molasses." Next: "Standard glucose syrup or corn syrup is glucose syrup or corn syrup containing not more than twenty-five per cent of water nor more than three per cent of ash."

Q. Now, I will ask you, doctor, if in Circular No. 13 (Exhibit 18), the standards, so far as glucose is or was concerned, were not just as they were in Circular No. 10?

A. I can only tell with certainty by looking at the circular. I believe they were.

Q. I call your attention to Exhibit 19, under date of December 20, 1904, purporting to have been promulgated by the secretary of agriculture as Circular No. 13 and ask you if you have seen this publication before?

A. Yes sir.

Q. Is that not the Circular No. 13 as promulgated by the secretary of agriculture under that date?

107 A. Yes sir.

Mr. FAIRCHILD: On page 9 I will offer in evidence in connection with his cross-examination, under the head of "Glucose Products"

the following: "Glucose syrup or corn syrup is glucose unmixed or mixed with syrup, molasses or refiners' syrup, and contains not more than twenty-five per cent of water and not more than three per cent of ash."

Q. Now, did those standards remain as the standards of the government until the promulgation of Circular No. 19, or was there an intermediate—

A. I believe there was an intermediate circular number 17, as I recall the number.

Q. Repeating the standards contained in 10 and 13?

A. As I remember, the standards on glucose are the same in both.

Q. And the standards remained the same, did they, the government standards, until Circular No. 19 was promulgated the 26th of June, I believe, 1906?

A. As far as I know, yes sir.

Q. Is there a difference, doctor, in the names applied to this article we have been talking about, calling it glucose, when it is sold in bulk to confectioners and manufacturers of preserves and articles of that description, than when it is sold as a table syrup?

A. So far as I know it is never sold unmixed for direct consumption.

Mr. FAIRCHILD: Now, I ask that that be stricken out.

A. Well, either as and for a table syrup is what I mean.

Q. What is that?

A. It is never sold unmixed for direct consumption as and for a table syrup, if you want to put it that way.

Q. That wasn't my question. I asked you about the name, if there was any difference in the name applied to it?

A. And I said as far as I know it was never a commercial
108 commodity and therefore there couldn't be a name.

Q. What you mean to be understood is, that it is sold to manufacturers unmixed?

A. It is sold to manufacturers unmixed, yes sir.

Q. And is called usually glucose when it is sold to them unmixed?

A. So far as I know exclusively as glucose.

Q. Now, when it is called corn syrup it is when it is sold as a table syrup mixed with other flavoring syrups?

A. I wouldn't call such a mixture a table syrup, so there may be some misunderstanding in our answers. I was trying to avoid the use of "table syrup" for such a mixture. I don't believe it is a table syrup.

(Question read.)

Q. When it is sold as a table syrup?

A. Well, if it sold as a table syrup, yes, it is sold sometimes under the name of corn syrup.

Q. Well, have you known it to be sold as a table syrup under any other name in Wisconsin since 1905?

A. Such mixtures?

Q. Yes.

A. O, yes, lots of cases.

Q. When and where?

A. Samples that were brought to the laboratory that were not labeled in compliance with the law of 1905.

Q. When was that?

A. O, since the law went into effect.

Q. The law of 1907 went into effect?

A. 1905 went into effect.

Q. Have you seen it in the form — a table syrup sold as glucose?

A. Since when?

Q. Since 1905, since the act of 1905 went into effect, in May 1905?

109 A. I don't remember as to that. I would have to look up my records. Most of it was sold as Corn Syrup, Golden Glory Corn Syrup and such as that.

Q. Karo Corn Syrup?

A. Karo Corn Syrup.

Q. Now, this syrup is some times called cereal syrup, is it not?

A. I don't believe in this country.

Q. Yes, in this country.

A. I have never heard it called that.

Q. Well, don't you find it in some of the encyclopedias and in the dictionaries called cereal syrup?

A. I believe I have seen that name mentioned in some French encyclopedias.

Q. Well, in American encyclopedias, haven't you?

A. I don't think I have.

Q. Or American dictionaries?

A. I don't think I have.

Q. Have you consulted all the dictionaries on this subject, the American dictionaries?

A. I have consulted the Standard Dictionary, the Century Dictionary & Encyclopedia, the Webster's International, I believe of 1906.

Q. Have you seen the Encyclopedia Americana?

A. I don't think I have.

Q. On the subject of glucose?

A. I don't think I have.

Q. Well, you couldn't tell us whether in that work it is referred to as sometimes called cereal syrup?

A. No sir, I couldn't.

Q. It is manufactured from different cereals?

A. Glucose?

Q. Yes.

110 A. Glucose can be manufactured from any starch and therefore from the starch of any cereal.

Q. Well if it were manufactured from rye, for instance, would you see any objection to calling it rye syrup?

A. Yes sir.

Q. If it were manufactured from wheat you would find objection to its being called wheat syrup?

A. Yes sir.

Q. Even though it were the only syrup that could be manufactured from rye or wheat?

A. I would say that the term is less objectionable than the term corn syrup, but still I think that the term syrup should be restricted more. I don't think that much deception could be practiced in calling it wheat syrup or rye, not as much as in the case of corn syrup.

Q. Well, do you know any other syrup, or is there any other syrup that could be manufactured from corn than the syrup we have here in question?

A. Yes, there is.

Q. What?

A. A syrup that is made from the stalks of corn.

Q. Oh, I am talking about corn, not corn stalks, but corn, as that term is ordinarily used in the market in common parlance — corn.

A. The term corn, as I understand it, is applied both to the grain and to the plant.

Q. Well, we will apply it to the grain now.

A. As applied to the grain, I do not know of any other preparation of that character that can be made from it.

Q. Now, when you see the word corn used commercially, do you refer to the stalk?

A. It all depends in what connection.

Q. I said commercially?

111 A. O, as it is sold by the bushel for instance, no.

Q. Commercially I say, in all respects commercially. When you see it advertised in a newspaper, for instance, "corn" does that include the stalks?

A. No, not ordinarily commercially—no, not in that sense.

Q. Or if it was rye or wheat, you wouldn't understand the straw of rye or wheat, would you, to be included?

A. Not if it was sold as a commercial commodity, no.

Q. Well, rye syrup, if it was manufactured from rye, would be a more specific designation than cereal syrup, wouldn't it, for the reason, I will add, that it gives you the specific source of the syrup instead of a general source, which may apply to a number of cereals?

A. It would be more specific, but I do not think it would be more correct.

Mr. FAIRCHILD: I ask that the last be stricken out.

Court: The portion from "I do not think" may be stricken out.

Q. Is that not also true as to the use of the term corn syrup? Would not corn syrup, as applied to a syrup made from corn, be more specific than applying to the same the word cereal?

A. No, I think it would be more vague, because it wouldn't leave a clear impression in the mind of the purchaser.

Q. Well, if you couldn't extract but one syrup from corn, wouldn't it be specific to call it corn syrup?

A. If you couldn't—but you can.

Q. Now, do you mean to include the stalk again??

A. Why, yes, certainly.

Q. Now, just confine yourself to the kernel.

A. Well, as applied to the kernel I would say not, but you asked me about corn.

112 Q. Yes, when I speak of corn I mean the kernel, I don't mean the corn stalk. The commercial article I am talking about.

A. As applied to the kernel I believe it is the only article that can be made that way and it would be more specific to call it corn syrup than it would cereal syrup?

— — —
A. As applied to the kernel, yes.

Q. Now, there are a number of sources, as there not, from which glucose may be made?

A. Yes sir.

Q. Will you name them all, doctor, as far as you can remember.

A. What are you referring to now, the sugar glucose or the commercial glucose?

Q. I am just saying glucose, I am giving that as the name and allowing you to select it. Do you mean there is a distinction between commercial glucose and glucose under any other name?

A. I believe I have already explained that distinction.

Q. That is, what you call dextrose, although it is called glucose, is a different article from the glucose of commerce?

A. Dextrose is only one of the constituents of glucose.

Q. And yet it is called glucose, is it not?

A. The article of commerce?

Q. Dextrose?

A. Detrose isn't glucose, nor is it dextro-glucose, strictly chemically speaking.

Q. Is that not one of the definitions of glucose and a synonym of the word glucose-dextrose?

A. I believe the dictionaries all say that the word glucose refers to a class of sugars, and there are a number of sugars that come into that class, among them dextrose and levulose.

Q. Now, from what sources may that class of sugars known as glucose be manufactured?

113 A. Well, I would have to take each member of the class and explain.

Q. I don't ask for any explanation, I just want the simple statement of the source.

A. Dextrose or dextro-glucose can be manufactured from any starch, as already stated, by the action of acids, and it can be obtained from honey, in which it is normally present; it can be obtained from grapes or raisins, in which it is also normally present. These are the chief sources. Dextrose is also present in acid fruits—most all acid fruits. It is present in the urine of diabetic patients, and probably found otherwise too—I don't pretend to remember all of the sources.

Q. It may be found in the juices of a great many plants, may it not?

A. Dextrose?

Q. Yes.

A. Yes, associated with levulose, and probably produced by the inversion of cane sugar in that case.

Q. But the dextrose may be taken out by itself, may it not, from the juices of a great many plants?

A. Not commercially.

Q. I didn't ask you commercially?

A. It might, small quantities; comparatively small quantities are only present; it might be possible to isolate those, although it would be a very difficult matter.

Q. Well, it may be made from a great many wood fibers too, may it not?

A. Yes, that is one source that I haven't spoken of—in the same way as it can be produced from or similarly as it can be produced from starch, it may be from cellulose or wood fiber.

Q. And it has even been made from sawdust?

A. From the cellulose contained in sawdust, yes.

114 Q. Now, as comparing glucose that might be taken from these numerous different sources that you have referred to, would you say that if you were taking glucose from corn that it would be a more specific designation of it than it would to say glucose?

Mr. OLIN: I object to that. I may not understand it, but if I understand the witness, the line of examination here, he hasn't stated that you would get glucose, as he has used the term, from all these various things, but you get dextrose.

Q. Well, dextrose is glucose.

A. Dextrose is a glucose. It is not the glucose of commerce.

Q. I didn't say that. I said glucose.

A. And the glucose of commerce cannot be obtained from all those sources I mentioned. I want that understood.

Q. No, I am not saying that. The reason that it would not be, I suppose, might be that you couldn't get it in sufficient quantities.

A. No sir, but because there is no maltose and no dextrin. Dextrin is at least necessary to produce the character of commercial glucose.

Q. Then in order to produce commercial glucose you must have dextrin present.

A. To make the commercial liquid glucose it is necessary to have dextrin present, yes sir.

Q. Now, I suppose that glucose, sometimes called dextrose or as called dextrose, has a chemical formula of its own, hasn't it?

A. Yes, it has a formula, $C_6H_{12}O_6$. There are a number of sugars that have the same chemical formula, empirically speaking, but the structural formula is doubtless different.

COURT: What is this $C_6H_{12}O_6$?

A. That is the empirical formula for the class of sugars called glucoses and therefore also for dextro-glucose.

Mr. OLIN: But is not the formula for commercial glucose?

A. Oh, no.

115 Q. Now, I understood you to say that this article known as glucose, as you call it, or corn syrup as it is sometimes called, is a wholesome food product?

A. I said when properly prepared, commercial glucose—I would consider commercial glucose a wholesome food product.

Q. Well, if there is any harmful ingredient in commercial glucose, would there be any difficulty in discovering it?

A. No sir, not a very great difficulty, considering the ordinary deleterious substances that one might expect to be present. Of course there might be a larger number of added deleterious substances in there that would make it difficult to find out, but the ones you would ordinarily expect to find present due to carelessness of manufacture you could discover without much trouble.

Q. Well, if there was any deleterious substance in there that you say might defy ready detection, it would have to be something that would be deliberately put in there?

A. Yes sir.

Q. Which would not be in the course of manufacture?

A. Yes sir, that is what I wanted to say.

Q. Then it would have to be a willful act?

A. Yes sir.

Q. Well, that same thing applies to sugar or any product, doesn't it?

A. Certainly.

Q. That is, you could detect just as readily in glucose a harmful substance as you could in sugar or in any other product?

A. Yes sir.

Q. Now, you spoke about syrups and molasses, that acids are not used in the manufacture of molasses. Is that true?

A. I don't think I said molasses. I think I said syrups.

Q. Well, I understood you to say molasses.

116 A. Well, that is not my recollection. I did not intend to say that if I did.

Q. What is the difference, doctor, between molasses and syrup?

A. I believe molasses are the residual products, non-crystalizable, after the sugar has been separated from true syrups, and syrups are made by evaporation of the sap of a sugar producing plant, or by solution of sugar itself or of the raw sugars, the massecuite as it is called. Thus maple syrup can be made from maple sugar by simply dissolving.

Q. That is simply the arbitrary classification that has been made in these standards and not the ordinary, customary classification among scientific men?

A. Why, I think that is the classification made by food chemists in this country, yes sir.

Q. I mean among the trade and the food chemists. Do you undertake to say that that is the classification existing among the trade and among food chemists, as distinguished from the standards established by this committee or the Secretary of Agriculture?

Mr. OLIN: I understand the committee was made up of food chemists.

Q. I am talking about the food chemists in general throughout the country?

A. I think the food chemists in general throughout the country, those who have anything to do with the enforcement of pure food

laws, make that distinction, with the possible exception of refiners' syrup which I think ought to be called refiners' molasses rather than refiners' syrup, because it is not a true syrup.

Q. Now, did you mean to say that acids were not used in the manufacture of syrups?

A. Not in the manufacture of syrups such as I have defined.

117 Q. Don't you use acid in the manufacture of cane syrup?
A. Not cane syrup of the kind I have defined.

Q. Well, any?

A. Why, it might be used, but it should not be used in my opinion.

Q. Do you find any syrups in which in the manufacture of which acids are used?

A. Are used?

Q. I say cane syrups, in the manufacture of which acids are used?

A. Perhaps there are some, but I don't think that they should be—that the use of acids should be prohibited.

Q. I am not asking for your opinion, but I am asking you for a fact.

A. I think those are adulterated syrups.

Q. Well, isn't it a fact that by a decision of the Board of Food and Drug Inspection of the agricultural department there is a specific label required on certain syrups because of the use of acids in them?

A. Not in syrups, but in the case of molasses there is. In the case of the manufacture of molasses sulphur dioxide is used; not in the manufacture of syrups.

Q. I am talking about the manufacture of cane syrups?

A. No sir, not to my knowledge. I think that statement refers to molasses.

Q. Now, I will ask you if there isn't a brand required by the government something like this: "Contains sulphur dioxide" on all molasses?

A. I don't think so, not the way you state it.

Q. Isn't that a requirement made by Approved Decision 76?

A. According to one decision by the Food and Drugs Inspection Board, the only one on that subject that I recall, the use of sulphur dioxide in all food products was to be prohibited after a certain date. Until that time had come it would be necessary to label the molasses and dried fruits and such food products that contained sulphur dioxide with the statement that sulphur dioxide was present. But I don't think it referred to syrups.

118 Q. Have you examined any molasses in Wisconsin recently to ascertain whether acids had been used in it or not?

A. Some samples have been analyzed in my laboratory.

Q. Well, did you yourself examine to find whether there were any chemicals in it?

A. Not I personally.

Q. You know nothing about it then?

A. I haven't personally examined any molasses for some time.

Mr. OLIN: Well, if it was done under your supervision I suppose you can state it.

Q. You understood that you find in molasses as ordinarily put on the market this sulphur dioxide?

A. Yes sir, in molasses as at present put on the market, generally, at least, it contains sulphur dioxide.

Q. And that is added in the process of manufacture?

A. Yes sir, so as to aid in the separation of the sugars, to remove certain impurities; also, perhaps, on account of a bleaching effect, altho that is denied by the manufacturers of molasses.

Mr. FAIRCHILD: Well, in this Decision 76——

Mr. OLIN: What is it headed?

Mr. FAIRCHILD: It is on page 8: "The following analyses showed the amount of sulphur dioxide usually found in molasses in the ordinary variations to which it is subject", then it goes on and names Orange Molasses, B. & O. brand, New Orleans Molasses, Porto Rican, Magnolia brand, Rockwood Molasses.

Mr. OLIN: What is the point?

Mr. FAIRCHILD: No point; I wanted to show that he would find these acids in molasses as it is put on the market.

Mr. OLIN: Is that in conflict with what he has stated?

119 —. I don't understand that it is.

Q. You stated what was contained in the reports of the different food departments of the states in regard to recognition of the name glucose. Did you state that you found in the reports of the different states that the health departments of those states recognized this article under the name of glucose?

A. No, I didn't say that.

Mr. OLIN: I don't think you state it quite correctly according to the testimony. It was that the state food chemists in reporting upon glucose as an adulterant always used the term glucose. Not the state departments, but the state food chemists.

Q. Well, these reports were made, were they, to the food departments of the states?

A. To the boards of health, or to the dairy and food commissioners, depending upon who was intrusted with the enforcement of the laws.

Q. Well, did you mean to say that the food departments of different states recognized this article exclusively as glucose?

A. I didn't say that.

Q. You didn't mean to say that?

A. No, my statement was that when the food chemists found glucose as an adulterant in any food product it was the universal or almost universal custom in this country to report such adulteration as glucose.

Q. Well, do you know the attitude of the health departments of the different states on that subject?

A. I do not. I have no personal knowledge.

Q. You don't know whether they recognize this article as properly called corn syrup as well as glucose, do you?

120 A. I have a general knowledge, but not a personal knowledge, and not a very accurate knowledge on the subject.

Q. You haven't any personal knowledge except as you read their reports and talked with them personally?

A. No.

Q. Have you ever noticed their reports, the reports of the boards of health of different states?

A. I don't think I ever noticed reports on the labeling of glucose mixtures. If I did I never paid much attention to that.

Q. You haven't in any way put yourself in touch with the food departments of any of the other states on the subject of the nomenclature of this article?

A. Why, not very closely.

Q. Well, closely, have you at all?

A. No, I never have directly.

Q. In other words, do you know whether in other states this article is recognized by the food departments as properly named corn syrup?

A. From my information I know that that term is permitted by the law of the state of Michigan, and I believe it is permitted by what is some times called rulings in some of the other states.

Q. Well, is it the law of Illinois?

A. I couldn't tell you.

Q. Do you know that in other states it is the rule that it may be called corn syrup?

Objected to as immaterial.

Objection overruled.

A. I have a general recollection, not a very specific one. I rather think Iowa did, and I believe the former commissioner of Missouri, who is now out of office, ruled that for the present the name corn syrup might be permitted. That is, he made that statement for the present.

121 Q. How as to Mr. Ladd of North Dakota? He is the president of your association.

A. I don't know what his present attitude is.

Q. Well, he is the president, is he not, of your association?

A. No sir.

Q. Well, he was the president?

A. Last year.

Q. Now, do you know whether in the other states of the Union to a very, very large extent this same syrup or the same article is sold extensively under the name of corn syrup?

A. I believe it is. It is sold extensively in Wisconsin under the name of corn syrup.

Q. I say extensively through most of the states of the Union. Don't confine it to Wisconsin.

A. I presume so. I have no knowledge on the subject.

Q. Well, isn't that your information? You must have attempted to inform yourself on that subject, haven't you?

A. Why, not on that subject. I would take it for granted that they would be sold.

Q. Now, isn't it a fact, that in most of the encyclopedias and in most of the dictionaries this article is termed a syrup?

A. In most of them I believe it is termed starch-syrup.

Q. Well, it is called a syrup, tho', isn't it?

A. Not by the unmodified term syrup. It is known as starch-syrup, altho' perhaps they might speak of it as a syrupy preparation.

Q. Well, a starch-syrup would be a more proper designation of it, wouldn't it, than glucose, because it is the direct product of starch?

A. If glucose hadn't been so universally used as the name for the product in this country, I should say yes; but in this country the term glucose has become so familiar that I believe it is a perfectly proper designation. It might perhaps also be called starch-syrup, since it is composed of from one-third to one-half of mucilage. Perhaps syrup and mucilage would be a better name.

Q. Now, since you have referred to mucilage, I would like to know from you, doctor, if in the manufacture of corn into sugar the mucilage wouldn't disappear entirely?

A. Not in the manufacture of glucose. But in the manufacture of starch sugar, the dextrin disappears largely, yes sir.

(Question read.)

A. You refer there I suppose to the manufacture of corn starch into starch sugar?

Q. I refer to the manufacture of corn into sugar.

A. The beginning is corn and the end is sugar, the end of the process is sugar.

Q. Now, I ask you if this, what you call mucilage, doesn't disappear entirely and is converted into sugar?

A. Yes sir—not entirely, but largely, and it can be entirely converted. Commercially it isn't converted entirely as a rule.

Q. Is mucilage of dextrin known commercially?

A. The mucilage of dextrin?

Q. Yes.

A. It is—that is, not by that name, but the ordinary mucilage—

Q. That's it, you give that name to it in order to make it offensive.

A. No sir, because it is recognized in the National Formulary, which is one of our standards for drugs in this country?

Q. Have you the work here?

A. No sir. I can get it for you though.

Q. That denominates it mucilage?

A. Mucilage of dextrin, yes sir.

Q. Is that an article that is put on the market as such under that name?

A. Not as a food product, no sir.

123 Q. Is it a commercial commodity at all?

A. Well, it would be—not under that name. It is, but not under that name.

Q. What name is it?

A. Mucilage. Ordinary mucilage is this mucilage of dextrin.

Q. Oh, the ordinary mucilage is mucilage of dextrin?

A. Yes sir.

Q. That is what you say may be converted entirely into—sugar?

A. Yes sir, by the application of acids.

Q. Well, you don't mean to say that that is a harmful product at all, do you, in glucose?

A. Why, no, I think it is digestible, I think it is a wholesome food product.

Q. You knew, did you not, doctor, that the three secretaries, of agriculture and treasury and commerce, had directly decided that corn syrup was a proper designation of this very article?

Objected to as immaterial.

Objection overruled.

A. I have seen a circular to that effect.

Q. I present to you, doctor, a certified copy, marked Exhibit 20 and ask you if this is the Decision that you refer to, Decision 87?

A. Yes sir.

Mr. FAIRCHILD: I offer this in evidence in connection with his examination.

Objected to as immaterial.

Court: It may be received.

Mr. FAIRCHILD: The last part of it. This is dated and reads as follows: "Washington, D. C. February 13, 1908. We have each given careful consideration to the labeling under the pure food law of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup
124 as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if labeled "Corn Syrup with Cane Flavor." Signed "George B. Cortleyou, Secretary of the Treasurer, James Wilson, Secretary of Agriculture, Oscar H. Strauss, Secretary of Commerce and Labor."

Q. Now, the three secretaries in pronouncing this decision must have used in reaching it a different standard from the one found in Circular No. 19.

Objected to as argumentative.

Q. And I will add on there: and returned to the standards found in Circulars 10, 13 and 17.

Mr. OLIN: Objected to because it don't pretend to be a reversal of any existing standard or the establishment of a standard or the interference with any definition and therefore adopted by these departments.

Objection overruled.

A. Their decision, as I view it, uses practically the same definitions that were in the previous standards.

Q. In Circulars 10 and 13?

A. And 17.

Q. Well, this federal statute, I haven't it here at present, did that

statute give any particular effect to the standards promulgated by the secretary of agriculture, any particular legal effect?

A. You mean the national food and drug act?

Q. Yes.

A. No sir.

Q. No, I don't mean the national food and drug act. I mean the act under which the standards were permitted to be made and promulgated. That was an appropriation act, as I understand it. Did that act give any particular legal effect to these standards, or
125 were they merely suggestive?

A. Why, it seems to me that's a question of law. I can give you the wording of the act.

Q. Well, that is what I am getting at. I didn't have the statute before me.

MR. OLIN: As referring to the first one, and it is the same right down to the one including 1905, this first one that I have was approved June 3, 1898, and on page 13 of the pamphlet I have and under the general heading "General Expenses" "Bureau of Chemistry," "Chemical Apparatus" etc., it goes on and makes an appropriation for various things named, and then on page 13 after a semicolon is this language: "to enable the secretary of agriculture, in collaboration with the Association of Official Agricultural Chemists and such other experts as he may deem necessary to establish standards of purity for food products and to determine what are regarded as adulterations therein, for the guidance of the officials of the various states and the courts of justice." Now if you want to get the whole matter before the court, you might as well do it here, I will refer you to the pages where it has just the same language in the other act, right along down through, if you care to. The next act was approved March 3, 1903, and on page 13 of the pamphlet I have, under the same general head of "Bureau of Chemistry" is identically the same language. Then in the act approved April 23, 1904, and on page 13 of the pamphlet I have, purporting to contain that law, under the same general head of "Bureau of Chemistry" is found precisely the same provision. The next act, approved March 3, 1905, and on page 15 of the pamphlet I have, is found under the same general head "Bureau of Chemistry" almost the same provision. I will read it, it is a little different. It reads as follows: "To enable the secretary of agriculture in collaboration with the Association of Official Agricultural Chemists and such other ex-
126 perts as he may deem necessary, to establish standards of purity for food products and determine what are regarded as adulterations therein." It leaves out the advice as to guidance, etc. of courts. Now the next act, approved June 30, 1906, which was four days after the standards were promulgated in Circular No. 19, and on page 19 of that act, there is this language: "To enable the secretary of agriculture in collaboration with the Association of Official Agricultural Chemists, and such other experts as he may deem necessary, to ascertain the purity of food products and determine what are regarded as adulterations therein." Omitting the provision as to standards, you will see. In the last act, I have, ap-

proved March 4, 1907, page 18 where it would come if incorporated according to all the other acts, that clause is entirely omitted. That is the history of it as I have got it.

Q. You stated that no longer was there any authority in the secretary of agriculture to establish standards?

A. Yes sir.

Q. Do you know that those standards now are regarded as of any force except merely suggestive, as the opinion of any chemist would be suggestive?

Mr. OLIN: Isn't that a legal question? And I suppose you are limiting it under the United States courts.

Mr. FAIRCHILD: Why, I don't mean to limit it to the United States courts. Read the question.

(Question read.)

Q. I would say, regarded by the department of agriculture?

COURT: He may answer

A. Why, I have no positive knowledge. It is my impression that they are merely regarded as evidence in the enforcement of the national pure food law.

127 Q. As to the opinion of the gentleman who framed them.

A. Why yes, what force they would have, I don't know.

Q. Well, they are frequently, are they not, in the decisions of the department of agriculture disregarded now?

A. Why, I have seen them quoted in practically all the food decisions under the national law—not the decisions—I mean decisions of courts, I have seen them quoted. Now just what force they had in the trial I don't know, or in the presentation of the case.

Recess until 2 P. M.

2 P. M. Trial resumed.

Redirect examination by Mr. OLIN:

Q. Doctor, you were asked to state whether dextrin was a wholesome food product, and I think that you said that it was.

A. Yes sir.

Q. Is it by itself a palatable food product?

A. No sir.

Q. And is it, therefore eaten excepting in connection with some other element or part of food?

A. I don't think anybody would want to eat it unless it were mixed so as to make it palatable.

Q. What is the distinction, if any, between corn starch which is used for table use and from which this article glucose is made, and the starch used for laundry purposes?

A. Why there is no difference. The starch is purified to the same extent in all cases.

Q. I think you stated you had no recollection of seeing the article corn syrup on the market here in Wisconsin prior to the enactment of the law of 1905?

A. That was my statement.

Q. Before that the mixture was sold under the different names that you have already spoken of?

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A. Those that came to my notice were, yes sir.

Q. I think you stated in one of the questions put by counsel that since the law of 1905 was enacted this substance has been sold in Wisconsin as corn syrup?

A. In many instances.

Q. I was going to ask you whether your statement wasn't too broad. Since the statute of 1907 was enacted can you tell us whether this article has been sold exclusively under the name corn syrup in Wisconsin?

A. Since the fall of 1907 and especially since the early winter of 1907 most of it has been sold under the name of "glucose flavored with refiners' syrup."

Q. Complying with the statute?

A. Yes sir. In fact I remember only one brand that continued to be sold under the name of corn syrup.

Q. Is that the brand of this Corn Products Company?

A. Yes sir, the Karo brand.

Q. They have insisted on the right to sell the product under that name of corn syrup?

A. Evidently.

Q. And they have insisted on that right since this action or these cases were commenced?

A. Yes sir.

Q. Now you were asked, Dr. Fischer, about a publication of standards and definitions of food products by a committee it seems of which you were put down as one and Mr. Edward M. Eaton was chairman, promulgated or adopted apparently at the meeting at Portland, as I understood you to say.

A. I said it was not adopted.

Q. Do you know how that document that was shown you came to be headed in the way it is, printing your name and others there?

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A. In a general way, yes.

Q. I wish you would explain to the court what you know about it.

Mr. FAIRCHILD: Are you going to put that in evidence?

Mr. OLIN: No I am not going to put it in evidence.

A. Dr. Eaton, who was chairman of the committee during the year preceding the Portland meeting never called the committee together, but a few days before the meeting, on our trip to Portland, he showed a few copies of these printed standards and definitions of food products, carrying our name upon it in this form which was presented to us. That was the first knowledge I had that any of our committee had framed any such standards.

Q. And it was printed and everything?

A. It was printed in the form in which you see it here in Exhibit 17.

Q. Now, were those distributed among the members of your gathering there at Portland?

A. Why, a few copies were distributed.

Q. Do you know what action the members took about them?

A. As before stated, Dr. Winton and I were the only other members of the committee present at Portland, and when Dr. Eaton called the committee together on the very last day of our meeting with a report that had been drawn up recommending these standards, Dr. Winton and I voted against adopting them as a report of our committee.

Q. Now what was done, if anything, or action taken with reference to any of these copies that had been gotten out in circulation there among the members?

A. Because Dr. Winton and I protested against having such standards promulgated with our names on, when we had nothing to do with the drawing up of these standards, a resolution was passed that all the printed copies of these standards be handed over to the executive committee so that they should not be distributed.

130 Q. Who was this publisher, Meyers?

A. H. B. Meyers, who, I understand, printed these copies for a number of years had a contract for printing the proceedings of our conventions.

Q. And did you ever get the proceedings of this meeting?

A. No sir, we didn't.

Q. Why not?

A. Because Mr. Meyers refused to give them up to the executive committee and he published them in his own paper.

Q. Now, were those standards as proposed such as you approved of?

A. No sir. I certainly would not approve of a very large number of the standards in this Exhibit 17?

Q. Why not?

A. Because I think they are faulty standards. Among other things, they allow the use of a large number of preservatives, allow the use of coloring matter almost indiscriminately, and there are so many things in there, so many standards in there which I consider absolutely false that I certainly wouldn't approve of them.

Q. Now, this association that met at that time at Portland bore what name, do you remember?

A. The National Association of State Dairy and Food Departments.

Q. Has that been in any way changed since?

A. Yes, the name was changed at the Portland meeting and then changed again at the Hartford meeting.

Q. What is the name as changed at the Hartford meeting and what was the year?

A. The Hartford meeting, in 1906 I believe, changed the name of the association to its present name, the Association of State and National Food and Dairy Departments.

Q. And what is it that entitles one to membership in that association?

A. This association consists of the food control officials
131 of the United States.

Q. Does it include also the chemists to the departments,
in the different food and dairy departments in the different states?

A. It does, commissioners and chemists.

Q. Of the whole country?

A. Yes sir.

Q. Including the national, as you said, and the different states?

A. Yes sir.

Q. Now has that organization had in existence a committee on
standards for some time?

A. Yes, for a long time, but they never adopted any standards
until the Jamestown meeting.

Q. The Jamestown meeting was in 1907?

A. Yes sir.

Q. Now, prior to that meeting you had adopted the standards or
recommended the standards to the secretary of agriculture as you
already have stated, in 1906?

A. What do you mean by "you"?

A. I mean the committee.

A. Not the committee of our association, no sir.

Q. No, but that committee?

A. The committee of the Association in the Official Agricultural
Chemists and I collaborated with them.

Q. I accept the correction. Now, I wish you would state how that
organization was made up?

A. The Association of Official Agricultural Chemists consists of
the chemists of the United States department of agriculture and of
the various state agricultural experiment stations, as well as the
chemists in charge of the chemical work for the enforcement of
state food laws.

Q. Now had that organization a committee on food standards?

A. Yes sir, it had one for quite a long time.

132 Q. Who were the members composing that committee
prior to and who had acted in connection with the standards
reported at the Jamestown meeting, if you can state? Do you re-
member the names?

A. The standards recommended and adopted at the Jamestown
meeting were made up by a joint standards committee of our associ-
ation.

Q. When you say "our" you mean what?

A. The Association of State and National Food and Dairy De-
partments and of the Association of Official Agricultural Chemists
acted jointly as a commission.

Q. Can you state how many different persons acted on each of
those committees?

A. There were five on each of the committees, but two were mem-
bers of both committees, so we were in all eight members.

Q. Now, you were a member, were you not, of one of those com-
mittees at least?

A. Yes sir.

Q. Were you on both?

A. No sir.

Q. Which one were you a member of?

A. I was chairman of the committee on standards of the Association of State and National Food and Dairy Departments.

Q. And you are still?

A. Yes sir.

Q. You have held that position how long?

A. Since the Jamestown meeting in 1906.

Q. Now, did that joint committee from these two different organizations make a report on food standards to the meeting held at Jamestown of the association of food and dairy departments in 1907?

A. The joint committee adopted certain standards, but these standards were presented to the Association of State and National Food and Dairy Departments by its committee.

133 Q. That is, the standards then, if I understand you, were first adopted by the joint committee, but were presented by the committee of this association you named?

A. Yes sir, and the other committee presented the same standards to their association and they were adopted in the fall of that year, as I understand it.

Q. To refresh your recollection, I hand you, Dr. Fischer, a book entitled Association of State and National Food and Dairy Departments, Jamestown Convention, 1907. If you will just glance at a few pages there and state whether the adoption of these standards that you have spoken of was preceded by a paper by Dr. Wagner of the Corn Products Company and by a discussion? Perhaps you recollect that without the book?

A. Yes sir.

Q. It was?

A. It was.

Q. Now, at the same session after that discussion were these food standards adopted?

A. Yes sir, subsequently.

Q. Do you remember by what vote?

A. By a unanimous vote. No objections raised.

Q. Was that meeting, or was it not, largely attended?

A. It was.

Q. Did those standards incorporate in them standards that had been adopted by the secretary of agriculture or promulgated in Circular No. 19?

A. Yes sir. They contained those standards in toto.

Q. You remember there was some testimony called attention to here whereby the power or authority of the secretary of agriculture to employ experts, etc. to investigate and promulgate food standards was withdrawn. You remember that legislation, do you?

A. Yes sir.

134 Q. And you remember the appropriation was withdrawn?

A. Yes sir.

Q. Had that committee made up of the chemists of the Association

of Official Agricultural Chemists and yourself as representing the Interstate Food Commission—were you investigating other foods or drinks at this time when the change in the law was made?

A. Yes sir.

Q. Which one particularly?

A. You mean just previous to the adoption of the standards?

A. No, afterwards, and just previous to the change in the law whereby the appropriation was withheld. Did you have a meeting at Louisville?

A. Yes, we had a meeting subsequently. We were then acting as a commission under the direction of the secretary of agriculture, but the right to establish standards had been taken from him, but an appropriation was granted to him for the purpose of investigating the purity of food products and determining what shall be considered adulterations therein.

Q. And you were still acting in that capacity?

A. We were, and he appointed the committees of both associations as a commission to look into the question of the purity of whiskies and other distilled liquors and also any other questions that might come up.

Q. And you had held one meeting, hadn't you on the matter?

A. We held two meetings previous to the Jamestown meeting, one at Louisville and other points in Kentucky, I will call that just one meeting, and another one just previous and partly in conjunction with the meeting at Jamestown.

Q. And had you set a time for a further meeting of the committees?

A. The secretary of agriculture had notified us of another meeting to be held in St. Louis on a certain day in May, 1907.

135 Q. Now, before that time arrived had the law been changed withholding an appropriation?

A. Yes sir.

Q. So you never held that meeting, did you?

A. No, we never did.

Q. Now, going on with this other matter, following up from the Jamestown meeting, you had the next meeting of this Association of State and National Dairy and Food Departments at what place?

A. After this?

A. Yes, after this Jamestown meeting?

A. The next meeting was held at Mackinac Island.

Q. Do you remember what time of this year?

A. August 4, 1908, it commenced I believe.

Q. Now prior to that meeting and between the Jamestown meeting and that meeting had there been meetings of these two committees of these two associations that you have designated?

A. Yes sir, two meetings.

Q. Was there a report made to this meeting of this association at Mackinac?

A. Yes sir.

Q. With reference to food standards?

A. Yes sir.

Q. Had this circular or this rule or department's decision made, that has been introduced in evidence, here by the three secretaries before you held these meetings of your joint committee, either one or both of them?

A. Can you give me the date of that circular?

Q. The date of the circular is February 13, 1908.

A. We had a meeting in Chicago about that time, I don't remember whether it was just previous or a little later, but we had a meeting at Mackinac Island before the meeting of our association, 136 which was held in August several months later.

Q. At that meeting was this circular considered?

A. It was.

Mr. FAIRCHILD: What circular?

Mr. OLIN: This circular that has been introduced in evidence by you, by the three secretaries.

Q. You say that matter was considered by the joint committee?

A. Yes sir.

Q. Was this matter considered of the proper designation of this article that we are discussing here, glucose?

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial, as occurring after this transaction, and it can't have any bearing upon it.

Objection overruled. Exception by defendant.

A. It was.

Q. And what was the conclusion reached on that question, as to whether the committee would adhere to the standard as fixed in June, 1906, or recede from it?

Mr. FAIRCHILD: I make the same objection to this question, that it is incompetent and immaterial, something occurring after the transaction.

Objection overruled.

Exception by defendant.

A. We decided to adhere to the standards on that subject at least—on glucose, in Circular No. 19.

Q. Did this joint committee agree upon a report made of standards made for food products?

A. Yes sir.

Q. What was that agreement, unanimous?

A. Yes sir.

Q. Was the report which that joint committee recommended later reported to this association that met at Mackinac.

137 A. It was.

Q. By whom?

A. By myself as chairman.

Q. You were chairman of what committee?

A. Of the committee on food standards of the Association of State and National Food and Dairy Departments.

Q. And who at that time was acting with you?

A. As a joint committee?

Q. Yes—no, of this single committee first.

A. Dr. Scovell, Director of the Kentucky Agricultural Experiment Station and in charge of the enforcement of the Kentucky pure food law, Dr. Jenkins, Director of the Connecticut Agricultural Experiment Station; Mr. Barnard, the Food and Drug Commissioner of Indiana and also a chemist, and I might say the other gentlemen are chemists; and Professor Fullmer, State Chemist of the state of Washington.

Q. That committee reported the standards that had been agreed upon by the joint committee to this association?

A. Yes sir.

Q. Now, did the association act on it there at Mackinac.

A. They did.

Q. What did they do with that report?

A. They adopted the report unanimously.

Q. And who was president of the meeting?

A. Dr. Ladd.

Q. Did he make any dissent or criticism in any way of this report, how he felt toward it?

A. No, he felt favorable towards those standards, and there was no dissent from the report by any of the commissioners or chemists.

Q. How representative a body was this that was held at Mackinac?

A. It consisted of the food commissioners or chemists of most of the states—

138 Q. You have stated what it consisted of, but were they there in attendance?

A. Yes sir.

Q. The membership was well represented there?

A. If my recollection serves me right, thirty-six states were represented.

Q. Going back just a moment, your association reports its proceedings, does it not?

A. Yes sir.

Q. Each year?

A. Yes sir.

Q. Have those for 1908 been put in book form yet or printed?

A. No sir.

Q. Those for 1907 at Jamestown have been, have they not?

A. Yes sir.

Q. And is that report on food standards and the standards themselves found in the report of the association between pages 347 and page 377 inclusive?

A. Yes sir.

Q. Now did this Association of State and National Food and Dairy Departments at its meeting at Mackinac appoint a committee on uniform legislation or some uniform law as to food products?

A. Yes sir, uniform state food law.

Q. Made up of how many persons?

A. Five I believe.

Q. Do you remember who they are?

A. Commissioner Faust of Pennsylvania as chairman; Professor Ladd, North Dakota; Dr. Scovell of Kentucky; Dr. Bigelow of the United States Department of Agriculture, and I think Commissioner Bird of Michigan.

139 Q. Do you know whether that committee has prepared a proposed law and sent it out to the different state departments?

A. Yes sir.

Q. Does that proposed law incorporate in it the food standards that were adopted at this last meeting?

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and the paper itself is the best evidence.

Court: Sustained upon the latter ground.

Q. Do you know how the standards adopted at the Mackinac meeting differ, if at all, from the standards that were adopted at the meeting at Jamestown with regard to syrup?

A. With regard to syrups and glucose products there were no changes made. There were practically no changes made, except in the case of distilled spirits.

Q. But as to glucose and the glucose mixtures and the different kinds of syrups and molasses, do I understand you that there has been no change?

A. There has been no change.

Q. From the time you adopted the standards or recommended the standards to the department at Washington?

A. No changes have been made since.

Q. Doctor, have you investigated the dictionary definitions of these terms glucose and syrup?

A. Yes sir.

Q. Have you got with you the definitions of those two terms as contained for example in the Century Dictionary, the Standard Dictionary and Webster's International Dictionary?

Mr. OLIN: I thought it might do no harm to read them into the record, getting it before the court.

Q. Take, for example, glucose and give us the definition of the Century dictionary first.

140 A. According to the Century Dictionary glucose is defined as follows:

"1. The name of a group of sugar having the formula $C_6H_{12}O_6$ ". I did not put the rest down; it went somewhat into the chemistry of that group. "Secondly. In commerce the sugar-syrup obtained by the conversion of starch into sugar by sulphuric acid".

Q. Take the Standard Dictionary and give the definition of glucose, keeping the terms separate.

A. The Standard Dictionary gives the following definition: "A sugar found largely in the vegetable kingdom and in honey, also in the animal organism, as in the blood, liver, urine. It is the principal member of the group to which it gives its name, and is much

less sweet than cane-sugar. It is made commercially by treating starch with diluted sulphuric acid, and the resulting solid product is called grape-sugar and the syrup glucose".

Q. Now, what is Webster's International Dictionary, how does that define glucose?

A. Webster's International Dictionary, after giving the scientific definition for the individual sugar glucose and the class of sugars called glucose, gives the following: "The trade name of a syrup obtained as an uncrystal-izable residue in the manufacture of glucose proper, and containing in addition to some dextrose or glucose, also maltose, dextrin, etc. It is used as a cheap adulterant of syrups, beers, etc". This is Webster's International Dictionary of 1906.

Q. Now, you may take up the term syrup and state how that is defined by the Century Dictionary.

A. Syrup is defined in the Century Dictionary: "1. In medicine, a solution of sugar in water, made according to an official formula, whether simple, flavored or medicated with some special therapeutic or compound. 2. The uncrystal-izable fluid finally separated from crystallized sugar in the refining process, either by the draining of sugar in leaves or by being forcibly ejected by the centrifugal apparatus in prepared moist sugar. This is the ordinary or "golden syrup" of grocers, but in the sugar manufacture the term syrup is applied to all strong saccharine solutions which contain sugar in a condition capable of being crystallized out, the ultimate uncrystallizable fluid being distinguished as molasses or treacle."

Q. Take the Standard Dictionary definition.

A. According to the Standard definition syrup is defined as follows: "A thick, sweet liquid".

Q. This is the first broad statement, is it?

A. Yes sir.

Q. Then what follows?

A. "Specifically a saturated solution of sugar in water; often combined with some medicinal substance or flavored, as with the juice of fruits, for use in confections, cookery, or the preparation of beverages. 2. The uncrystallizable portion of any saccharine substance, as sugar-cane juice, separated from the crystallizable sugar during the process of sugar-boiling, or that which drains from sugar in the process of separating or refining; called molasses by planters. 3. The condensed cane-juice before separation of the crystallizable sugar; so called specifically by planters".

Q. Take Webster's International Dictionary and state the definition?

A. According to Webster's International Dictionary of 1906 syrup is defined: "1. A thick and viscid liquid made from the juice of fruits, herbs, etc. boiled with sugar. 2. A thick and viscid saccharine solution of superior quality (as sugar-house syrup or molasses, maple syrup). Specifically, in pharmacy, and often in cookery, a saturated solution of sugar and water (simple syrup), or such a solution flavored or medicated".

Q. You were asked by counsel if the products were made from the grain rye whether you would consider it proper to call it rye syrup.

Would such a syrup have any of the characteristic flavor of the grain rye?

142 A. No sir.

Q. I don't know what the fact is, but I believe we have a whiskey that is called Old Rye, or something like that. Does that have any of the flavor or quality of the grain or supposed to have?

A. It has if made from rye. But it would not have if it were made from rye starch.

Q. But made from the grain you say it has?

A. Yes sir.

Q. But if made from the starch of the rye, it wouldn't have?

A. No sir.

Q. Do you think that it is an honest designation to call it Old Rye or Rye Whiskey?

A. If it is that.

Q. When you answered counsel's question that it would be easy for one to determine or detect any deleterious substance that might be in this product, were you referring to the consumer or to the chemist?

A. To the chemist, not to the consumer.

Q. Is there any difference in the use of the acids, if any, in case of molasses and in the manufacture of glucose?

A. A different acid is used.

Q. Well, I don't mean that, but is there a difference in the use?

A. Yes.

Q. And in the effect? What is it?

A. In the use of sulphur dioxide, or sulphuric acid as its aqueous solution may perhaps be called, in the manufacture of molasses, the object is primarily to clarify the juice to remove certain albumenoid constituents, so as to make the crystallization of the sugar easier. The more impurities there are left in the juice the more difficult it is to crystalize out the sugar.

Q. There is no chemical change there, is there?

143 A. No, the object is to reduce all chemical changes to a minimum, to use only enough sulphur to produce this clarification without producing any chemical change, because if there is a chemical change it means a reduction in the amount of sugar they can get. Whereas in the case of glucose a stronger acid is used and it is absolutely necessary to have a deep-seated chemical change take place to produce glucose.

Q. Do you know whether Mr. Ladd of North Dakota was at the Jamestown meeting?

A. He presided at the Jamestown meeting.

Q. Something was said about making sugar from sawdust. I believe you said that it could be. If you were to chop up a maple tree and use the wood from which to make a syrup, would you call it maple syrup?

A. No sir?

Q. It would be syrup made from the tree of the maple, wouldn't it?

A. Certainly. Indirectly in the same way as glucose is made from corn.

Q. This ruling of the three commissioners that has been referred to, do you understand whether there has been a ruling of the department as to the Wisconsin statute as to branding, whether they could brand this article as the Wisconsin statute requires and still be entirely with the United States law?

A. Yes sir.

Q. What has been the ruling, as you understand, of the department in that respect? I will withdraw the question.

Q. This part of the product which you spoke of, mucilage of dextrin. That, as I understand, when the product is sold in this liquid form remains in it as a part of it?

A. Yes sir.

Q. And it's only when you carry the process farther and get the sugar that you get this mucilage of dextrin out of it?

144 A. Yes sir. It is essential to commercial glucose.

Q. I suppose you can make caramel out of this product?

A. Not as easily as you can from cane-sugar.

Recross-examination by Mr. FAIRCHILD:

Q. Doctor, I am not certain I asked you this morning whether glucose has ever been or corn syrup has ever been produced from the stalk, commercially, for commercial use?

A. As I understand it, it was produced in considerable quantities during the revolutionary war. Whether it was sold commercially I don't know.

Q. There never has been any manufactory established for its production that you know of?

A. No sir.

Q. Well, whether it can be produced for commercial use is at best now merely a problem, isn't it, or a conjecture?

A. Yes. Especially in competition with glucose as corn syrup.

Mr. FAIRCHILD: Now, doctor, you don't have to make any argument at all. I ask that it be stricken out. I didn't ask him anything about competition at all.

Motion granted.

(Question read).

A. It seems to me whether it can — produced commercially or not depends upon competition. I may be mistaken, but that would be the way I would interpret it.

Q. I didn't ask you whether it could be profitable done.

A. I say it is not being done at the present time.

Q. I am saying, can it be produced, whether it can be produced for commercial use is a problem and a mere conjecture.

A. That would depend on what utilization could be made of the other material, and it would also depend on the competition it would have to meet.

145 Q. Well, that is merely an argument in favor of it, but I am saying it hasn't been yet demonstrated that it can be done.

A. According to the report of the United States department of agriculture it can be successfully done, and the manufacture of paper pulp from corn stalks is a successful manufacture, and its competition with the wood pulp would depend upon the sale of the corn syrup that is made as a byproduct.

Q. But is hasn't been accomplished as yet?

A. No, it hasn't.

Q. And whether it can be is a problem yet unsolved?

A. Well, it hasn't been done yet. I stated the report of the United States Department of agriculture on that investigation.

Q. Are there any glucose factories in Wisconsin?

A. I don't know of any.

Q. No glucose is produced then in Wisconsin, as I understand you?

A. I don't know of any that is produced.

Q. Well, that is true as long as you have been connected, is it not, with the department of the food and dairy commission?

A. As far as I know there never has been a glucose factory in Wisconsin, but I wouldn't want to say that authoritatively.

Q. Well, you would know whether there has been any in the last six or seven years?

A. Probably. Not with absolute certainty, no. There might be factories, but I am under the impression that there are none.

Q. Did you have to do with the preparation of the statute, chapter 152 of the laws of 1905 or your department?

A. Is that the law relating to the sale of glucose mixtures?

Q. Yes.

A. Yes sir, our department did.

Redirect examination by Mr. OLIN:

Q. That chapter 152 of the laws of 1905, the Michigan statute. Did you have anything to do with framing that yourself?

A. Yes sir, Mr. Emery and I had something to do with the framing of it.

Q. And you had more to do, didn't you, with the law of 1907?

A. Yes sir. As much at least.

Mr. OLIN: We offer in evidence Exhibits number 15 and 16. They are a part of the products purchased in this case.

Dr. FISCHER: If I may make a statement, your honor, I would like to say that I added to all of these samples, except to the glycerin and the phosphoric acid, a small amount of preservative, so that they would not spoil in case the sample would have to be kept.

Q. Does that change their appearance to the eye at all?

A. No, nor to the taste.

Q. It was done simply to keep the color?

A. So they wouldn't ferment.

Recross-examination by Mr. FAIRCHILD:

Q. What is this preservative?

A. Benzoate of soda.

Q. How much did you put in?

A. The quantity varies a little bit in the several samples. It is about three-tenths of one per cent.

Mr. OLIN: I next offer in evidence Exhibit Number 1, which is the glucose mixture, for the purpose of showing its general consistency and color.

We next offer in evidence Exhibit number 1b, which is the sample which was taken from a barrel at Teckemeyers, and also the sample marked Exhibit 1a, which was purchased from Sprague, Warner & Co.

Dr. FISCHER: That was left at the office by some manufacturer, I don't know who, but I know it is glucose.

Mr. OLIN: I will separate that and offer in evidence the first here Exhibit 1b, with the statement made and the explanation that it has colored some since.

147 Now, I will offer separately the other, which was testified to, number 1a, which I think shows the condition of things better, because it is not discolored at all. It is the plain glucose, only it differs from 1 in that it is more condensed.

We also offer in evidence Exhibit 1c, which is testified to be the form of purified starch-sugar, showing another condition of the product, showing one of the constituents of the product.

We next offer in evidence Exhibit number 1d, which is a sample of maltose, another constituent of the product of glucose.

We next offer in evidence Exhibit number 14, which is the exhibit of maple syrup, showing the color of the maple syrup and its consistency.

We next offer in evidence Exhibits 4 and 5, which are a mixture of eighty-five per cent or glucose No. 1 and fifteen per cent of the refiners' syrup No. 2 in one case and No. 3 in the other.

148 FREDERICK DOWNING, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Downing, where do you now reside?

A. In Madison, Wisconsin.

Q. You have lived here how long?

A. One year.

Q. What is your business now?

A. I am working in the laboratory of the Wisconsin dairy and food commission.

Q. Have been for how long?

A. For about one year.

Q. Did you at one time work for the Corn Products Company?

A. I did.

Q. For how long a time?

A. For about three months.

Q. On what place?

A. I was at their plant in Chicago for a trifle over a week; I think it was about ten days.

Q. What were you doing there at Chicago, familiarizing yourself?

A. Familiarizing myself with their methods, with the intention of being sent out to Granite City.

Q. In Iowa?

A. Granite City, Illinois.

Q. And then later did you go to Granite City, Illinois?

A. I did.

Q. And worked there in what capacity?

A. As chemist.

Q. In the laboratory?

A. Yes sir.

Q. For how long?

A. A month.

149 Q. Then you worked where?

A. Then I was transferred to Pekin, Illinois.

Q. And worked there how long?

A. Somewhere in the neighborhood of six weeks.

Q. And did they at either place make what they send out now under the name of corn syrup?

A. They did at Granite City.

Q. But at the other place?

A. Not to my knowledge.

Q. Well, now, in the laboratory did you have samples sent to you there for the purpose of being analyzed?

A. Of this Karo Corn Syrup?

Q. Well, samples of the products that they were making?

A. Yes.

Q. Mixed or unmixed or both?

A. Well, we had samples of what they called glucose and samples of what we call in the laboratory mixed goods.

Q. Now, was there any designation put upon these samples that you called glucose there as they came to you?

A. Yes, the word glucose was written on the sample on a piece of paper and handed to us in the laboratory in that form.

Q. And the other, where the glucose was mixed with something else, was that marked in any particular way as it came to your laboratory?

A. I don't recall definitely what was placed on these samples. It may have been "Matched goods" or it may have been "Mixed goods", but I am not sure as to that.

Q. Well, do you think it was corn syrup?

A. No, it was not that.

Q. Now, was it the course of business there for the chemist to make a daily report to the superintendent of the particular factory?

A. Yes sir.

150 Q. Was that in a printed form filled up from day to day?

A. Printed blanks were gotten out and these were filled in by the chemists.

Q. Now, have you got with you a copy of one of those so as to be able to state how they designated this product they were making?

A. When I was at Chicago?

Mr. FAIRCHILD: When was that?

Q. 1907, wasn't it?

A. Yes.

Q. It was about a year ago, wasn't it?

A. I went to work for them in the fall, September 1907, and remained with them until I came here, the latter part of December.

Q. Of this year?

A. Of last year, 1907.

Q. So this was in 1907 sometime in September you think, along in there, or between that, along in September?

A. October was when I was at Granite City.

Q. Now, you were going to state that while at Chicago you did what with reference to this daily report?

A. Why, being sent out to Granite City, I was to be sent out as the first assistant in the laboratory, and in familiarizing myself with the work which I was to do there I copied their methods and I also took a copy of their daily laboratory report.

Q. Have you got that with you?

A. I have.

Q. Then subsequently did you notice whether such a report as you copied was in use at this place?

A. Yes, these same blanks I believe are in all the laboratories where I worked.

Q. Now, just state in your own way what this report contained as to the article, by the chemist?

Mr. FAIRCHILD: What name was given to it, that is what you are after?

A. This report was called the Daily Laboratory Report.

Q. Now, in that report how did it designate the article that was being manufactured?

A. Well, of course a great number of substances are dealt with in this report. With regard to the case here, they spoke of the—

Q. Just read right from your book there.

A. Well, they spoke of the "acidity of glucose"—

Mr. FAIRCHILD: I thought your were simply going to ask him what was the name applied to the article itself that he was to analyze.

Mr. OLIN: No, this wasn't what he analyzed, but this was the daily report of the head chemist there, as I understand, he reports to the superintendent every day, and it contains a blank to be filled in with various things, the products that are being made there, how he designated it. We want to show that right in the factory there the article went under the name of glucose.

Mr. FAIRCHILD: Well, isn't that your whole object?

Mr. OLIN: Well, that is the ultimate object, yes.

Mr. FAIRCHILD: Well, let him state then—

A. Purity of glucose".

Q. That is another term?

A. Those are the only two that are mentioned on this, "purity of glucose" and "acidity of glucose" determinations that we made.

Q. Any where in this report did they use the term corn syrup?

A. Not to my knowledge.

Cross-examination by Mr. FAIRCHILD:

Q. Was there any flavoring or mixture of any kind or was it just straight, simple glucose?

A. There was no flavoring.

152 Q. It wasn't a mixed compound then, it was just simply glucose that is contained in that report?

A. No, it was a mixed compound.

Q. Were those samples that were examined in any way in the laboratory, or what were they reports of?

A. The glucose was tested for acidity and for sulphuric dioxide and the specific gravity or Baume strength. These three determinations were made in the laboratory.

Dr. T. B. WAGNER, being first duly sworn, testified as follows:

(Examined by Mr. OLIN:)

Q. Dr. Wagner, you reside where?

A. Chicago.

Q. Are you connected with the Corn Products Company?

A. Corn Products Refining Company.

Q. Refining or refinery?

A. Refining company.

Q. How long have you been connected with the company?

A. The company has been in existence only three years, but I have been connected with the predecessor of the company.

Q. About how long?

A. A period of ten years.

Q. What was the predecessor?

A. The Corn Products Company.

Q. Is is a new corporation that was formed or just a new name for the old?

A. The old name was Glucose Sugar Refining Company.

Q. That was how early?

A. Just about ten years ago.

153 Q. Then the Glucose Sugar Refining Company was preceded by what name?

A. By the Corn Products Manufacturing Company.

Q. And that was succeeded?

A. That company was not succeeded, that was merged with the Corn Products Refining Company, which was an independent concern.

Q. And the latter company was the one whose name was taken?

A. Yes.

Q. Wasn't there a separate organization at that time—distinct, separate reorganization?

A. Yes sir.

Q. But that has been in existence some three years?

A. Yes, two years and a half.

Q. What is the particular part of the work that you do for the company, doctor?

A. I am engaged in the manufacture of our various products.

Q. Have general supervision of it?

A. In an advisory capacity, yes.

Q. And have general charge of the getting of the product on the market?

A. No I have not.

Q. Who has charge of that?

A. A committee; the committee on manufacture.

Q. I show you an advertisement here in the Wisconsin State Journal of November 20, 1907. Is that one of the advertisements that your company sends out?

A. Yes sir—has sent it out, yes.

Q. For some time?

A. Yes sir.

Q. Is this advertisement you see in the issue of February 20, 1908, of the Madison Democrat also one that the company sends out or authorizes?

A. Yes sir.

154 Q. And the same in the issue of February 11, 1908, of the same papers?

A. Yes sir.

Q. And the advertisement in the issue of February 27, 1908 in the Madison Democrat?

A. Yes sir.

Q. And the advertisement in the Madison Democrat of April 9, 1908, was that authorized by the company?

A. Yes sir.

Q. And the one in the issue of April 2, 1908 of the Madison Democrat?

A. Yes sir.

Q. And the one in the issue of March 19, 1908 of the Democrat?

A. Yes sir.

Q. Just a word as to this latter one to get it into the record. That has a sort of a circle with the ears of corn represented, does it not?

A. Yes sir, two ears of corn?

Q. I show you one in the issue of the Wisconsin State Journal of November 20, 1907. Is that also authorized by your company?

A. Yes sir, I think so.

Q. I show you a publication entitled The Grocery World, purported to be printed at Philadelphia and New York, under date of December 9, 1907. Are you familiar with that publication, doctor?

A. I know its title, its name.

Q. On the last sheet, or rather the last page exclusive of the cover, in that issue, do you find an advertisement from your company of its products?

A. I see an advertisement. I don't know anything about it, however.

Q. You don't recognize that as one of your advertisements?

155 A. I see our name attached to it. I have not seen the advertisement before it was printed.

Q. You saw it after it was printed.

A. The first time I have seen it is now.

Mr. OLIN: We offer in evidence the advertisements to which the attention of the witness has been called in the different issues of the Madison Democrat and the Wisconsin State Journal, of the dates testified.

Received in evidence and marked as Exhibits as follows: Wisconsin State Journal, issue of November 20, 1907, marked Exhibit 21; Madison Democrat, February 11, 1908, Exhibit 22; issue of February 20, 1908, Exhibit 23; February 27, 1908, Exhibit 24; March 19, 1908, Exhibit 25; April 2, 1908, Exhibit 26; April 9, 1908, Exhibit 27; which exhibits are hereunto attached and made part hereof.

Q. I show you a can here, marked for identification Exhibit 28 and ask you whether that is one of the forms this article was sent out in?

A. It is our brand, and it seems to me to be quite an old label. It doesn't agree with the present label as it is put up.

Q. How does it differ, what is the prominent label on the can?

A. Golden Glory Corn Syrup with Cane Flavor.

Q. The prominent words are Golden Glory Corn Syrup, are they not?

A. Yes, on this label, and equally prominent the words 10% refiners' syrup and 90% corn syrup.

Q. Well, that shows for itself, it is marked here, whether that is equally prominent. It also has a figure of the ear and plant of the corn, hasn't it?

A. Yes sir.

Q. That has marked I see November 11, 1907 in lead pencil. I will assume that that is the date of the sale of it here, doctor?

A. I presume the retail sale.

156 Q. I show you here a paper that has been marked Exhibit 29 for identification and ask you to state whether that was one of the labels that your company put out?

A. This was a label gotten up by my company and intended solely for the Michigan trade.

Q. It don't get up into Wisconsin you think?

A. Not through us. A man might purchase a can in Michigan and bring it up here in Wisconsin, that is beyond our control.

Q. You decline to sell this stock to people in Wisconsin you mean?

A. Only the Michigan trade would ask for this sample, because it complies strictly with the Michigan law.

Q. Well, you don't know of your own knowledge whether this was ever sold in Wisconsin or not?

A. I know that our syrup department sells this class of goods under that label only to Michigan—at least with the distinct understanding to the trade that the product is intended for the state of Michigan.

Q. That also has quite prominent at the top the plant and ear of the corn bound together?

A. Yes sir, together with the words "White Ribbon Corn". That is a trade mark.

Q. And that seems to be Kairomel Brand. Then right under that in large type Corn Syrup for Table Use?

A. Yes sir.

Q. Is that term Kairomel used now?

A. Yes sir.

Q. Is that word Karo sort of a contraction for that?

A. No sir, no connection.

Q. I now show you a paper marked for identification Exhibit number 30 and ask you to state whether that is one of the labels your company was sending out?

A. I don't know this label.

Q. Well, it has Davenport Refinery on it, hasn't it?

157 A. It has on it, "Packed by Davenport Refinery, Davenport, Iowa".

Q. That is one of the branch concerns of your company, isn't it?

A. Not under that name. It was known to the trade in years gone by as the Davenport Refinery. This label appears to me to be a very old label and I do not know whether it was gotten up by my company or the old Davenport concern ten years ago or so.

Q. You don't know that goods were being sold here in Wisconsin just before the passage of the law of 1905 by this company under that label?

A. I had no knowledge of that.

Q. You wouldn't say that they were not?

A. I wouldn't say they were.

Q. Or that they were not?

A. No, I have no knowledge of it whatsoever.

Q. You recollect, don't you, of having seen that label before?

A. No. I do not recollect that I have seen that label before.

Q. Nothing like it? I don't mean this identical one—whether you have seen one like that?

A. This label is called Our Pride Sorghum. I have seen labels of our own with Sorghum Substitute or Sorghum and Corn Syrup or Corn Syrup and Sorghum.

Q. I did not have that in mind when I asked you the question. I refer to the pictorial representation in the center of the Exhibit, of parties cutting the corn.

A. Yes, I have seen that on our labels, something similar to that at least I will say.

Q. That represents the harvesting of the corn plant, doesn't it—is meant to do that?

A. I don't know. The pictures are certainly not artistic, and it leaves a man in doubt whether that is a corn field or cane field.

158 Q. Well, I will show you the successor of it, which I think will enable you by the other terms on it, Exhibit 31, that will leave no doubt I guess as to what is meant.

A. My criticism would still hold good, Mr. Olin.

Q. I know, but with the other wording on the label you would

be able to distinguish, would you not, whether it was a corn field or whether it was something else?

A. Well this says very plainly, 40% sorghum and 60% corn syrup, glucose mixture.

Q. And has the central picture, has it not, of the parties cutting apparently corn?

A. Well I don't know whether that is corn or cane, or what it is. I wouldn't think of putting out that kind of a cut.

Q. No, we want to get the history of this to know what your company was doing in 1905.

A. This company was not organized until 1906.

Q. You became the successors to them?

A. Yes, we became the successors to them.

Q. I now show you, doctor, a paper marked for identification Exhibit 32 and ask you to state whether you recognize that as one of the labels under which the Corn Products Company disposed of its product at any time?

A. I do not recollect this label, and the name appearing on the label, "Chicago Refinery" leads me to believe that this is a different concern than the Corn Products Company. There was the Chicago Refinery or Chicago Syrup Refinery with which we were not identified.

Q. Was there any concern in Chicago at that time by the name of Corn Products Company other than the one you were identified with?

A. What time?

Q. 1905.

A. The Chicago Syrup Refinery or Chicago Refinery.

159 Q. I didn't ask you that—under the name of Corn Products Company.

A. 1905?

Q. Yes.

A. Yes, Corn Products Company.

Q. Well, that was your name?

A. Yes.

Q. There was no other company?

A. No, not that I know of.

Q. And there hasn't been at any previous time, has there, that you know of?

A. I do not think so.

Q. Now, as refreshing your recollection as to whether or not this was a label sent out by the Corn Products Company that I first showed you, Exhibit 32, will you now look at Exhibit 33.

A. Well, this is an entirely different label, radically different than the first one you showed to me.

Q. You can point out the difference.

A. The first label, gotten up by the concern Chicago Refinery, with which I am quite sure we were not connected, has on it the statement. Pure Louisiana Molasses. Whatever that was I do not know. The second label, "Packed by Corn Products Company, Chicago, U. S. A." which is one of the concerns which we have succeeded, has a label called Louisiana Glucose Mixture in very large

type and further explained by a statement 40% molasses, 60% corn syrup.

Q. Now, you may not have observed it, but isn't that the same label as the other, except after the law of 1905 it was modified or changed to comply with the Wisconsin statute, the second one.

A. In answer to that I will say these are not labels of our own make, these are stock labels carried by the printer and offered to any syrup dealer, jobber or manufacturer.

Q. Well, I didn't mean to dwell on the point as to whether
160 you printed them, but I am simply calling your attention to what you put out on your goods, whether you printed them or somebody else did.

A. I would say there is a radical difference between the two labels however, I cannot identify the first one.

Q. Each of them has on it the term Louisiana hasn't it?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. Are you certain that this label on Exhibit 32 Pure Louisiana Molasses, Packed by Chicago Refinery, was not one of your company's labels?

A. I cannot place it.

Q. Or any of the labels of your predecessor?

A. Yes, that is my impression.

Q. Do you know whether this label represents molasses or corn syrup?

A. I would ask to be shown that label. I don't know which one it is.

Q. And I will add to that, whether the picture there is not the picture of cane?

A. I think this label states very plainly that this is Pure Louisiana Molasses, and there is the pictorial representation of a cane stalk.

Q. Not a corn stalk, but a cane stalk?

A. A cane stalk.

Q. Did your people during your administration put up a thing like that?

A. No sir.

161 GLENN P. CROSSMAN, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live Mr. Crossman?

A. Milwaukee.

Q. What is your business?

A. A merchandise broker.

Q. How long have you been in the business of merchandise broker in Milwaukee?

A. Continuously since 1874 down. I think it was May or June, 1874?

Q. As a merchandise broker have you handled syrups?

A. Yes.

Q. Directly with the retail trade or jobbers?

A. Jobbers.

Q. Does your business extend all over the state or confined to Milwaukee?

A. Milwaukee.

Q. Have you known of the manufacture of a product called Corn Syrup?

A. I have.

Q. When did you first know of it?

A. I first heard the name of corn syrup and knew about it in 1870.

Q. Where?

A. At Green Point, Long Island. There was a refinery there making corn syrup.

Q. Corn syrup from the grain?

A. I don't know what they made it out of. I supposed it was from the grain. That was common syrup; that is all I knew. I only saw the syrup.

Q. Have you seen the material out of which it was made?

A. I have seen the material after it was made.

Q. No, have you seen the material out of which it was made. Do you know whether it was made out of grain or what it was made from?

A. I don't know.

Q. Was it sold as corn syrup?

A. Sold as corn syrup.

Q. Was that quite extensive?

A. Yes, it was quite a large refinery.

Q. Now, did you later on come to Milwaukee?

A. Yes, in 1874. I came about May of 1874.

Q. Did you know of the manufacture there of corn syrup?

A. I did.

Q. When was that?

A. It was about 1876 or possibly '7 somewhere along there. I have no record of it, but it was about that.

Q. Did you handle any of the product from that factory?

A. I did.

Q. In your regular business as a broker?

A. Yes sir.

Q. Do you know about how many years you handled it?

A. About one year.

Q. Did the factory go out of business there?

A. The factory moved to Chicago. They moved it from Milwaukee to Chicago, or from Humboldt, it was a little place just north of Milwaukee on the Milwaukee river. They gave up their business there and took it to Chicago.

Q. Do you remember the name of that company?

A. Maize Saccharine Company, but I am not sure.

Q. What form did they put up corn syrup in?

A. In barrels.

Q. Did you handle it in barrels?

A. I sold it that way, all that they made exclusively.

Q. Did you sell their entire product?

163 A. I sold their entire product so far as I know. If they got any away from me I didn't know it.

Q. Do you know what that was made from?

A. Corn I suppose. Talking with the superintendent at that time, that's what he said, it was made from corn.

Q. Have you handled that syrup since for any one else?

A. Well, the next one I sold it for was a refinery at Rockford, Illinois, but I forgot the name. A. M. Johnston of Rockford was interested in it largely.

Q. How did you sell that, by the barrel?

A. By the barrel exclusively.

Q. Do you know whether that class of syrup was put up at that time in cans at all?

A. If it was I did not know it.

Q. Did you later on sell it in cans?

A. I did. Not for them. After they failed and went out of business I became acquainted with the Davenport Refinery and sold syrup for them, and they wanted it to be sold in cans and I afterwards introduced it to the Milwaukee grocers in cans and got them to take it that way instead of in barrels.

Q. Now, how long did you continue or down to what time did you continue to sell this article known as corn syrup?

A. I think it was about 1902.

Q. Did you know of a brand called Golden Glory?

A. Golden Glory, yes.

Q. Did you sell this article under that designation?

A. Well, that was the brand I think, Golden Glory, that was the brand at that time.

Court: At what time?

A. About when I noticed it, about 1900, or somewhere along there, I can't state the exact time, I have nothing to go by, just for the moment.

164 Q. Now, have you with you any of your books or letters or anything of that kind showing the sale of this article under the name of corn syrup?

A. Well, I have a book here, a cipher book published in 1881, and which I used in 1881 and afterwards for a number of years, in which they use the word corn syrup.

Mr. OLIN: I object to that.

Q. Where is your book?

A. It is here. It isn't in cipher. It is a plain statement.

Q. This was the kind of a book that was used by brokers?

A. Yes sir, that was used by brokers. Green & Son were the brokers in New York and I was the broker in Milwaukee, and we worked together.

Q. Is that the book you have just spoken of as the cipher book, this small book?

A. It is.

Q. Now, to get at the meaning of this, in what were these ciphers used?

A. The cipher was used to save expense in telegraphing.

Q. And if you used a particular word this cipher code stated what that word meant?

A. Yes sir.

Q. I will call your attention to page 84 of this cipher book and ask you to state whether you find on that page the cipher for the words "Send samples corn syrup from — to —?"

Objected to.

COURT: He may answer.

A. "Merged."

Q. Now, I ask you if all I read including that word "merged" is printed there in that book.

A. It is.

Q. Have you with you the copies of any letters written by 165 you—is that your copy book?

A. Yes, that is mine.

Q. Have you copies of any letters written in the ordinary and usual course of your business and sent out by you in which reference is made to the sale of corn syrup?

A. Yes.

Q. Under what date?

A. Here is one under date of August 7, 1890.

Objected to as immaterial.

COURT: The answer may stand.

Q. Have you any objection to reading that?

A. No, I have not.

Q. Read it then and I offer it in evidence.

Objected to as being mere hearsay.

COURT: It may be received.

"AUGUST 7, 1890.

Messrs J. R. Kennedy & Sons, Oshkosh, Wis.

DEAR SIRS: Yours of the 6th inst. received. Knight's Syrup is 35c. Philadelphia, Pa. Revere, Extra Diamond, 32c. Boston. Both these refineries are oversold. No syrups in refiners' hands. At no time since May 1st have I been able to sell orders from either Knight's refinery or Revere or Standard. I am selling sugar syrup and can give you a close match for Knight's at from 28 to 30c. Freight, can only save two cents per gallon. Every prospect of higher prices. Corn syrup 30c. Milwaukee, no refusals, as the combination make prices on corn syrup. Would be pleased to receive your orders for Davenport goods, first-class goods, and as cheap as any. Can give you can goods. Twenty barrels from George F. Hunt's Black Strap.

166 Q. Now, have you got down as far as including all that was said about the corn syrup?

A. I think so, yes.

Mr. OLIN: Read the rest.

A. "13 c. delivered Milwaukee; all others 14, and scarce. Sugar market strong. Granulated, Standard Refinery, 6.18 to arrive. I believe this to be less than cost and a good purchase. Nudavine,

now 5.40 a barrel, Milwaukee. Anything you want in my line would be pleased to hear from you. Yours truly."

Q. Now, have you any other letter referring to corn syrup?

A. No, not that I know of.

Q. Have you in your possession now all your letter books?

A. No. I don't know how I happened to save this one.

Q. What is this on page 693?

A. That must have been in 1893.

Q. That is a letter written to?

A. The Davenport Sugar Refinery, Davenport, Iowa.

Q. Syrup Refinery, isn't it?

A. Yes, Syrup Refinery.

Q. Davenport Syrup Refinery?

A. Yes, Davenport Syrup Refinery.

Q. It is a cipher despatch isn't it?

A. Yes.

Q. But the words corn syrup are written out, are they not?

A. The words corn syrup are written out, yes. "Westward" is "Send samples of corn syrup to Roundy for selection. That was Roundy, Dexter & Company, or Roundy, Peckham & Company."

Q. Was that a name with which you always designated that particular syrup?

A. The corn syrup?

Q. Yes.

167 A. I never sold it under any other name all these years.

Q. Now, all that you sold came from this Davenport factory?

A. I don't know where it was shipped from.

Q. All that you sold for this Davenport factory was sold under that name?

A. That is the way I sold it always—no other way. I didn't know anything else, no other name.

Q. Now, you say you sold clear down to 1902 or '3?

A. Yes.

Q. Then you didn't carry on the sale of these goods any longer, it went over to some one else?

A. Yes.

Q. Do you know anything about how extensively that cipher book was used by the trade?

A. Well, it was issued in New York and was sent to brokers probably that had connection with the New York broker; he would send them to all his connections, using that one cipher. How extensively that was I have no means of knowing.

Q. Do you know about how extensively you sold this product there in Milwaukee, to how many dealers you sold?

A. From which refinery have you reference to?

A. Well, during the time that you sold down in 1903?

A. Oh, I sold all the grocery houses, all the wholesale grocers in Milwaukee.

Q. That letter there was a copy of one of your letters to one of your customers?

A. It was.

Cross-examination by Mr. OLIN:

Q. Mr. Crossman, if I understand you correctly, you don't know whether this early refinery you spoke of made the product from the stalk of the corn or the grain of the corn, from your own knowledge?

A. Not of my own knowledge. My recollection of it is
168 that the superintendent spoke to me and spoke to me about buying corn.

Q. I thought you used that expression about the superintendent speaking to you, not with reference to this early institution in Rhode Island, but with reference to the institution in Milwaukee?

A. Yes, in Milwaukee, the little plant that was up on the river.

Q. I was not asking about that. I was coming to that. The next knowledge you had of this article you call corn syrup was in connection you say with a small plant at Milwaukee?

A. Yes.

Q. That didn't last but a year there and went to Chicago—that is right, is it?

A. Yes.

Q. You have dealt in syrups, I understand, in its sale as a broker in Milwaukee from 1876, was it?

A. '74 I think.

Q. From 1874 down to about 1902?

A. Up to the present time.

Q. But since 1902 you haven't dealt in this article?

A. No, not in corn syrup.

Q. Have you had any other business, Mr. Crossman?

A. Oh, no, that wasn't my business. I introduced and represented—

Q. Have you had any other business than acting as a broker?

A. No.

Q. For the sale of syrups?

A. Oh yes, I represented the Nudavine—what is the name of it now—in Chicago, the American Cereal Company, or the Quaker Oats Company, I represented them for a great many years up to about two years ago.

Q. Any other interests you represented?

A. I represented Arbuckle Brothers of New York.

Q. They are manufacturers of what?

A. They make sugar, refine sugar, sell green coffees.

169 Q. Any other interest that you ever represented there as a broker?

A. Oh, yes. I don't think now that I represented any other different sugar refineries.

Q. The fact is the selling of this corn syrup has been a very small part of your business?

A. Oh, yes, it was a small part of my business.

Q. I think that you never sold corn syrup under any other name than corn syrup?

A. No.

Q. Did you know what it was?

A. Simply corn syrup. They would send me samples that this

was corn syrup and I would sell it in that way—sell it from the sample.

Q. Now, was it labeled corn syrup?

A. That I couldn't tell you. I never saw the packages themselves. I simply sent the orders in to the refinery and they shipped it to the grocer.

Q. You don't know whether it was labeled as Sorghum Mixture or Fancy Drips?

A. No sir.

Q. Or New Orleans Molasses, or anything of the kind?

A. No sir.

Q. All you were seeking to do was to get a product, as you understood, that was manufactured some way from corn?

A. Yes sir.

Q. You understood it that way and you sold it as that?

A. Yes sir.

Q. How it was represented as it was sold to the customer you have no knowledge whatever?

A. No sir.

Q. Or how it was labeled?

A. No sir.

Q. Don't you know as a matter of fact, take it in this state, that up to 1905 there was very little, if any, syrups sold that were labeled and sold to the consumer and labeled corn syrup—don't you know that as a fact?

A. I don't know how much there was or what it was labeled, because I didn't see the packages.

Q. Well, didn't you, in dealing with your customers, ascertain that fact, that instead of being labeled as corn syrup they were labeled in some way to represent that it was cane syrup or sorghum or molasses or maple syrup?

A. The question never came up at all.

Q. Well, you knew there was a great deal of these mixtures sold to the consumers?

A. I knew there were mixtures sold.

Q. You knew that this article that was manufactured from corn was a cheaper article than the grade of cane syrup and molasses made from the sugar cane and from sorghum and from the sap of the maple tree?

A. I always understood those things. I never sold any maple syrup. I have sold sugar syrup, made from sugar cane. I have sold that, but of course I never saw the packages. It was sold to me as such.

Q. But, as I understand it, you don't pretend to say what this article was labeled when it was sold?

A. I couldn't tell you.

Q. I think in this letter that you wrote, if you will turn to it, you stated something with reference to the corn syrup, the price of it being 30 cents?

A. Yes sir.

Q. Just turn to that part of it again. What is said in that con-

nection about who fixed the price and the reason for it? You read something there that I didn't quite catch.

A. "As the combination make prices on corn syrup" is 171 that what you have reference to?

Q. What do you mean by that, as to the combination making prices?

A. I suppose it probably was different refiners at that time, corn syrup refiners made a price. I haven't it distinctly in my mind now, but I presume they belonged to it, and that is what I had reference to.

Q. Well, if you don't know that fact then, you learned it in 1902, that there was such a combination?

A. Yes, that was formed afterwards under some name, and I still continued with them after they were consolidated.

Q. Did you know at that time or through all these years what glucose was?

A. I had nothing to do with glucose. I just knew it as corn syrup.

Q. Well, you knew what the substance was, glucose?

A. Yes.

Q. Well, did you know that most all of this product during these years, that you ordered as corn syrup, was made out of glucose, or didn't you?

A. Why, the question didn't come up with me at all.

Q. You never thought of it?

A. It wasn't the principal part of my business, although I sold it for a number of years, I didn't think much about those things. I may have been told so, I may have known it in a general way, but for my own personal knowledge I don't think—I don't think I was ever in the Davenport factory or the one at the river there or in the Rockford factory, I have no recollection of it, so I know nothing about that part.

Q. You didn't care very much what it was made of?

A. Well that wasn't my business. They were to protect the goods, I was to sell them.

Q. You sold all you could?

A. I sold all I could.

172 & 173 Q. For as high a price as you could.

A. They fixed the price. I had nothing to do with that.

Q. You got your commissions?

A. Well, I got it all, yes sir.

Q. I hope you did?

A. I did. It paid all right.

174 GEORGE McDERMOTT, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. McDermott, you are a defendant in this action?

A. Yes sir.

Q. And sold to Mr. Larsen one of those cans of Karo Corn Syrup?

A. I didn't directly, one of my clerks did.

Q. But it was done there at your store?

A. Yes sir.

Q. Where did you get that syrup?

A. I bought this from Reid, Murdock & Company, Chicago.

Q. Was it shipped to you from Chicago?

A. Yes sir.

Q. In the ordinary course of business?

A. Yes sir.

Q. And when you got it what did you do with it?

A. Took it from the cases and set it on the floor in a corner.

Q. What form was it put up in, cases, you say, wooden cases?

A. Yes sir.

Q. Ordinary wooden boxes?

A. Yes sir.

Q. You took it out of the box and what did you do with the box?

A. I used it for kindling wood I guess.

Q. That is the ordinary way you treat your boxes that you receive goods in?

A. Yes sir.

Q. You put the syrup yourself up on your shelves for sale?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. Did you buy more than one case at this time, do you remember, of this?

175 A. I don't remember whether it was just one case or not.

Q. But whatever you bought you remember you opened the case and took out the cans or pails and put them on the shelves?

A. Yes sir.

Q. Do you remember how many you had sold of the cans or pails before you sold this one?

A. I do not.

Q. You made some sales, didn't you?

A. Yes.

Q. This was a pretty substantial box, wasn't it, that it came in?

A. Fairly so.

Q. How was it stenciled or marked on the outside?

A. I don't remember.

Q. Did it have Karo Corn Syrup or Golden Syrup or what?

A. If I remember right it had Karo Corn Syrup on it, I couldn't say for sure.

Q. With the name of the company that made it, the Corn Products Company?

A. I can't remember.

Q. But you do remember the other part of it, that it had the Karo Corn Syrup on?

A. I am not positive, but I think so.

Q. Now, just refresh your recollection, Mr. McDermott, your clerk handed the article out to Mr. Larsen, didn't he, and wrapped it up, and then Larsen paid him the money for it?

A. Yes.

Q. And you gave him a receipt for it?

A. I gave him a receipt for it.

Q. And took the money?

A. Yes sir.

176 Redirect examination:

Q. How many cans were there in this box?

A. There was twelve cans in the box.

O. B. McCLASSON, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live?

A. Chicago, Illinois.

Q. What is your business?

A. I am in the wholesale grocery business, secretary and treasurer of the McNeil-Higgins Company.

Q. Are you an officer in any other association?

A. I am vice-president of the National Wholesale Grocers Association.

Q. How long have you been connected with this institution of McNeil & Higgins?

A. About nine years. Since the death of Mr. Higgins.

Q. In any particular capacity, and if so what?

A. Why, I am known as the secretary and treasurer of the company. It is my duty to look after the help, department managers, general all-around supervision.

Q. Has your concern dealt in corn syrup?

A. Yes sir.

Q. How long have you been selling corn syrup?

A. Well, I should say from my own knowledge five or six years, when my knowledge was first called to it.

Q. Are you selling the product of any particular concern?

A. I think the Corn Products Refining Company, we are selling their goods.

Q. Have you sold this Karo Corn Syrup?

177 A. We have.

Q. Do you know for how long you sold it?

A. Oh, I couldn't say positively. I should say three or four years.

Q. Do you sell it in Wisconsin?

A. We sell it in all the states.

Q. In all the states?

A. Well, in most of the states, I wouldn't say in all the states.

Q. Have you traveling salesmen in all the states, or most all of them?

A. A good many of the states; not in the eastern or far western states, we don't sell much.

Q. Central?

A. Usually within a radius of four or five hundred miles of Chicago we are selling.

Q. Have you more than one salesman in Wisconsin?

A. Yes sir.

Q. How many salesmen in Wisconsin engaged in the selling of this syrup?

A. I should say about ten or twelve.

Q. Do they cover the whole state?

A. Not every town in the state. Principally in the southern part of the state.

Q. Well, are they all confined to the southern part of the state?

A. No, we sell goods in the northern part, up in Minnesota and Wisconsin.

Q. Well, do they pretend to cover practically all of the larger towns and cities in the state?

A. I wouldn't say that we were selling it in every city in the state.

Q. Well, I said all the larger towns and cities.

A. I wouldn't say in all the larger towns.

Q. Do you sell to retailers and wholesalers also?

178 A. Exclusively at wholesale to the retailer.

Q. Do you sell in barrels and kegs or half barrels, as well as in cans?

A. I don't know of any except in cans.

Q. You may have?

A. We may. I don't know. I haven't had it called to my attention if it is sold in barrels.

Cross-examination by Mr. OLIN:

Q. Of course, you didn't mean that you had ten or eleven agents up here in Wisconsin selling this article alone?

A. No sir.

Q. You simply have agents representing your house?

A. That is a small part of the business.

Q. Do you remember, Mr. McGlasson, whether up to the passage of the law in 1905 in this state you sold any of this article under the name of corn syrup or whether you sold it under some other name?

A. I think it was designated as corn syrup before that time.

Q. How long would you say you had sold any in this state under the name of corn syrup?

A. I should say back of four or five years.

Q. Now, aren't you mistaken about that? You mean about four or five years from the present time?

A. Yes, from the present time.

Q. That would make it somewhere about 1904 you think?

A. I should say so. I wouldn't be positive about the date.

Q. Your company has been selling in the state a large variety of these syrups, haven't you, prior to 1905?

A. Why, I presume, like all jobbers.

Q. Under various names, such as sorghum, Louisiana Molasses, Fancy Drips, under the name of maple syrups that were not
179 maple syrups or syrups at all.

Objected to as not proper cross-examination.
Objection sustained.

Q. I think you said that as far as you were concerned you don't remember of dealing in anything other than the cans or pails, Mr. McGlasson?

A. I don't remember, no sir.

Q. It is your best recollection that you haven't?

A. I wouldn't say. I have no knowledge of it.

Dr. RICHARD FISCHER, being recalled by the prosecution, testified as follows:

(Examined by Mr. OLIN:)

Q. Have you since you were on the stand, doctor, secured a copy, as was promised, of the proposed food law as recommended by this committee?

A. Yes.

Q. Have you got it with you?

A. Yes. (Produced by witness.)

Q. Where did you get this from, Doctor?

A. I received it through Mr. Emery. I understand that Mr. Emery received it from the secretary of the committee.

Q. What instructions if any were given there at your meeting at Mackinac to this committee as to the incorporation in this proposed law of these food standards?

Objected to as incompetent, irrelevant and mere hearsay.

Objection overruled. Exception by defendant.

A. The association instructed the committee to draft a model pure food law in which the standards adopted at Mackinac should be incorporated.

180 Q. Was there any dissent from that vote, do you remember in the association at Mackinac?

A. I don't think there was a dissenting vote, as I recollect.

Q. Have you looked through the proposed law to compare the same with the standards adopted at that meeting of your national association to see whether or not those standards are incorporated in this proposed law?

A. I sent to the secretary of the committee a certified copy of the standards adopted at Mackinac and since the receipt of this bill I have looked over the standards on molasses and refiners' syrup, on syrup and on glucose products, and I find that these standards correspond to the ones adopted at Mackinac.

Q. You haven't examined as to the whole of the bill?

A. No sir, I haven't looked it over.

Q. But you have stated the instructions given?

A. Yes sir.

Q. Have you got with you a copy of the standards as passed at Mackinac?

A. No, I have not. They have not been printed. I have a copy of them. I hold a copy as chairman.

Q. You can produce that, can you, in the morning?

A. Why, it is hardly in shape so that I could produce it. I can get it out though in a day or two.

Q. That is, it has not been run off you mean?

A. It has not been printed in its present form. It hasn't been typewritten in its present form.

Q. It is in longhand?

A. No it isn't. There were very few changes made from the printed standards of the Jamestown meeting. There were certain additions, but very few changes, and it would be necessary to make a copy of those changes and of the additions.

181 Mr. OLIN: I will offer in evidence that Circular No. 19.
(Marked Exhibit 34.)

Mr. FAIRCHILD: I object to it as incompetent, because the standards promulgated by the secretary of agriculture are not legal standards in the state of Wisconsin.

Received subject to the objection; hereunto attached and made a part hereof, so far as material and not already included herein.

Exception by defendant.

J. Q. EMERY, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, you are the dairy and food commissioner of this state, are you not?

A. Yes sir.

Q. You have held that position for how long?

A. Since December 24, 1902.

Q. Before that did you hold some official position in this state?

A. Yes sir.

Q. What was that?

A. I was state superintendent for four years.

Q. Prior to that you were at the head of one of the normal schools?

A. For four years, yes sir.

Q. You are familiar with the legislation that has been adopted in this state in 1905 and 1907?

A. Relating to foods, yes.

Q. And you are familiar with the history of the pure food legislation of the state prior to that time?

A. In a general way, yes.

Q. Were you present, Mr. Emery, at the meetings that have been referred to at Portland and Jamestown and at Mackinac?

A. I was not at Portland. I was at Jamestown and Mackinac.

182 Q. Were you at the meeting at the time the standards were adopted at Jamestown?

A. Yes sir.

Q. Do you remember whether they were adopted by unanimous vote?

A. That is my recollection, that there was no vote against them.

Q. Do you remember whether that vote adopting these standards was at the same session and following a discussion of a paper read by Dr. Wagner of the Corn Products Company?

A. Yes sir, I remember that very distinctly.

Q. There was some discussion about the paper, was there not?

A. Yes sir. I took part in it.

W. Were you present at the meeting of the association at Mackinac?

A. Yes sir.

Q. And at the time the vote was taken there adopting the standards referred to by Dr. Fischer?

A. Yes sir.

Q. Do you remember whether or not that vote was unanimous or otherwise?

A. My recollection is that it was unanimous, that there was no vote against it.

Q. Do you remember the appointment by that organization of a committee to prepare a proposed uniform pure food law for the different states?

A. I do.

Q. Can you state who were appointed on that committee?

A. Yes sir.

Q. Do you know who was chairman of it?

A. Yes sir, Dr. Ladd, who was then president of the association, was made chairman of the committee.

Q. Is he the commissioner for North Dakota?

A. Yes sir.

Q. At the present time?

183 A. Yes sir.

Q. And has been for how long, do you know?

A. Well, he has been since the food law of North Dakota was established. He has been commissioner as long as I have been commissioner. I met him at St. Paul and have met him at all meetings I have attended since.

Q. Who are the other members of the committee?

A. Mr. Baird, dairy and food commissioner of Michigan; Mr. Faust, dairy and food commissioner of Pennsylvania; Mr. Scovell, director of the experimental station and also in charge of the food work in Kentucky, and Mr. Bigelow of the bureau of chemistry of Washington, D. C.; Mr. Allen, who has been in special charge of the food control work at Kentucky; and one other, there were seven of them. I am not sure whether I named six or seven.

Q. There is one other, is there?

A. That's my recollection, but I can't recall the name at this time.

Q. Was there at that meeting at Mackinac a code adopted instructing this committee to incorporate in the proposed uniform food law the standards that had been adopted at that meeting?

A. Yes sir.

Q. Do you remember whether there was any dissenting vote on that question?

A. My recollection is there was not.

Q. Now, Mr. Emery, do you recall what the fact is as to the names or terms under which these different mixtures were sold or have been sold in this state prior to the enactment of the statute of 1905?

A. I do.

Q. You may state what the fact is as to that matter.

A. The fact is that these mixtures were being sold under the name of Syrup, Table Syrup, Golden Syrup, Honey Drips, 184 Sorghum, or Our Pride Sorghum, Pure Louisiana Molasses, and other kindred names.

Q. Fancy Drips?

A. Well, I can't remember all of them.

Q. Candy Drips?

A. Yes sir, Rock Candy Drips.

Q. Now, the law of 1905 required, did it not, a change of the name under which these things were being sold?

A. Yes sir.

Q. Were you familiar with the labels that were being used by the different companies in the disposition of these mixtures that you now have spoken of?

A. As presented to me by them, yes.

Q. You mean representatives of the company?

A. Well, representatives of food men. I can't name those people, but people who came to my office to get approval of their labels for the marking of their products in this state.

Q. I will ask you, Mr. Emery, to look at Exhibits number- 30 and 31 and state whether you have seen those before?

A. Yes sir.

Q. Do you know how they came into your possession?

A. Yes sir. They came into my possession by representatives of food companies bringing them to me for approval.

Q. Exhibit 30 has near the bottom "Davenport Refinery, Davenport, Iowa," has it not?

A. Yes sir.

Q. At the top Our Pride Sorghum, Besides that, over to the left, is "Choice Quality," isn't it?

A. Yes sir.

Q. And over to the right "Full Weight"?

A. Yes sir.

Q. And in this circle in the center is a picture of what?

A. I should call it a picture of a sugar-cane field, with a 185 sugar-cane factory over there.

Q. Sugar-cane or corn, can you tell?

A. Well, I regard it as sugar-cane. It may be sorghum.

Q. Was that label brought to you?

A. Yes sir, that label was brought to me.

Q. After the law of 1905 was passed?

A. I remember it very distinctly.

Q. Now, was that label modified, and is that modification shown in Exhibit number 31?

A. That was the label modified and approved by me under that statute, that it would lead to no contest if offered for sale in this state.

Q. They wanted to get up a label that would avoid conflict with the law?

A. Yes sir.

Q. And that label has headed, hasn't it, 40% Sorghum, 60% Corn Syrup?

A. Yes sir.

Q. Then the other part of it the same as the first, isn't it, excepting at the bottom, is "Glucose Mixture"?

A. Yes sir.

Q. Now, who required or how did that come to be put on there "Glucose Mixture"?

A. Well, the law of 1905 required that these mixtures should be sold under one of two names, either glucose or corn syrup, corn syrup mixture, those two words were used in the statute; and in the case of this substance, sorghum, there was no possible way in which corn syrup could be used upon it to make that sell, and they were compelled to use the words glucose mixture.

Q. With the term corn?

A. The law required that they should put the percentages of the ingredients on the label in a certain style and size of type, and thus conform to the provisions of that statute.

Mr. FAIRCHILD: You say that you required that?

A. I required that as a matter of approving it under the statute of Wisconsin of 1905.

Mr. FAIRCHILD: I want to get at whether you required that.

A. Well, I required, as a matter of the statute, that it should be labeled "Glucose Mixture" or "Corn Syrup." The law gave them that privilege. I had no power to say whether it should be one thing or the other.

Q. After that interview they got up this label?

A. Yes sir, and left that with me as a guaranty of good faith.

Q. Do you know whether the representatives of this company at Davenport represented to you that the article which was labeled as Our Pride Sorghum, as shown by Exhibit 30, was the same article under the next label.

A. That was the representation made to me.

Q. Will you state what your recollection is, Mr. Emery, as to the sale in this state prior to 1905 of syrups under the name of so-called syrups under the name of corn syrup.

A. It had not come to my attention at all, with probably one or two exceptions. I think there may have been in 1904 a few sales under the name of corn syrup—that is, called to my attention.

Q. I now show you, Mr. Emery, Exhibit number 33, and state how that came into your possession?

A. In the same way, from a representative of some of these people with regard to securing the approval of the label for the product to go onto the market.

Q. That has on it, has it not, "Packed by Corn Products Company, Chicago, U. S. A."

A. Yes sir.

Q. Is this the form of the label as it was first brought to you, or was the label that was brought to you modified later to correspond to what you have there?

187 A. The other label was Louisiana Molasses, and it was necessary to change the label for that, Louisiana Glucose Mixture.

Q. I don't know that the fact is, I may be mistaken, and I judge from what Dr. Wagner says that he claims we are. Here is Exhibit 32, and is there any connection, if you know, between those two Exhibits?

A. These two came to me together.

Q. 32 is the one headed Pure Louisiana Molasses?

A. Yes sir, and that is the label that had to be modified.

Q. You think then that there is a connection between those two?

A. Yes sir.

COURT: The two are Exhibits 32 and 33, are they?

Q. Yes, Exhibits 32 and 33, 32 coming first and 33 following as the modified label.

A. Yes. I have a distinct recollection of those.

Q. Why do you say that?

A. Because of the complaints that the representatives made that there was no possible escape from calling that "Glucose Mixture" L.

Mr. FAIRCHILD: I ask that that be stricken out. It is simply a hearsay statement, it doesn't give anybody's name, it doesn't show that the one making it represented us in any way.

COURT: The answer may be stricken out.

Q. Do you remember who the party was?

A. I cannot recall positively. I know that Dr. Wagner came to me once, and there was other parties came to me, Mr. Host of Milwaukee came, Mr. Ira B. Smith, representing the Wholesale Grocers' Association.

Q. Well, they came from the other side?

188 A. On the general principles of securing a general approval of label by which the products could be marketed without any protest on the part of the dairy and food commissioner.

Q. I hand you now a paper that has been marked for identification Exhibit number 35, and how did that come into your possession?

A. Yes sir, in the same general way that the others did.

Q. This is marked differently though, isn't it?

A. Yes.

Q. Golden Glory Corn Syrup is prominent, isn't it?

A. Yes sir.

Q. With Davenport Refinery, Davenport, Iowa?

A. Yes sir.

Q. With "90% Corn Syrup" over to the left and "10% Cane" over to the right?

A. Yes sir.

Q. Exhibit 29 is shown you. Where did that come from, do you know?

A. It came to my possession in the same general way that the others did.

Q. That purports to be a label of the Corn Products Company, doesn't it?

A. The Glucose Sugar Refinery Company, Chicago.

Q. Does it say the Glucose Sugar Refinery Company?

A. Yes sir, and also, "Packed at the Davenport Refineries."

Mr. OLIN: Now, we offer in evidence Exhibits number- 30 and 31. We also offer in evidence Exhibits 32 and 33.

Q. I think I asked you whether the same party came with reference to those two exhibits?

A. Yes sir, I received those from the same party.

Q. And one of them, Exhibit 33, is marked Corn Products Company?

A. Yes sir.

Mr. OLIN: So we offer those two in evidence. We also offer in evidence Exhibit 35.

189 Dr. T. B. WAGNER, being recalled, testified as follows:

(Examined by Mr. OLIN:)

Q. Showing you Exhibit 29, I see it is one of the labels I — you that had Kairomel Brand, that you say was gotten up for -gan. Now I notice at the right-hand here it says "Packed at Chicago and Davenport Factories of the Glucose Sugar Refinery Company, Chicago." That was a term under which you advertised your company as the Glucose Sugar Refinery Company?

A. Yes. That is several years ago.

Q. I thought you said it was three or four years ago. How long ago was it?

A. Your inquiry refers to Glucose Sugar Refinery Company?

A. Yes, Glucose Sugar Refinery Company.

A. Well, that name went out of existence several years ago.

Q. Well, when?

A. Three years.

Mr. OLIN: We offer that in evidence, Exhibit 29. We also offer in evidence this can that I showed Dr. Wagner and was marked for identification Exhibit 28, the Golden Glory can.

Recess until 9 A. M. December 30, 1908, at which time the trial was resumed.

190 W. J. TECKEMEYER, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Teckemeyer, where do you reside?

A. Madison.

Q. What is your business?

A. Manufacturer of confections.

Q. A candy manufacturer?

A. Yes sir.

Q. Here in this city?

A. Yes sir.

Q. How long have you been in that business?

A. Oh, in the neighborhood of twenty years.

Q. How extensive in a general way is your business, Mr. Teckemeyer?

A. We manufacture and wholesale.

Q. You in your business use what is known as glucose?

A. Yes sir.

Q. To what extent say a year?

A. Oh, it varies, in the neighborhood of a hundred barrels a year.

Q. And about how much is there in a barrel?

A. They run around six hundred pounds.

Q. How long have you been using that article?

A. Why, ever since we have been in the business of manufacturing.

Q. And that is how long?

A. In the neighborhood of twenty years that I have been at it.

Q. Under what name have you bought it?

A. Glucose.

Q. Have you ever bought it under any other names?

A. No, that is, I haven't bought it under any other name.

Q. Have you lately had any shipped to you under any other name?

A. Why, my last bill was under another name.

191 Q. From what company was that?

A. The Corn Products Company.

Q. Under what name was that?

A. They called it corn syrup.

Q. Do you remember about what date that was you got that bill.

A. Some time in September I think.

Q. This year?

A. Yes.

Q. Did you order it billed that way?

A. No.

Q. What did you purchase?

A. I always called it glucose.

Q. And had you ever in your dealings with them instructed the Corn Products Company to bill your goods to you in a particular way?

A. No sir.

Q. Have you dealt at different times with other firms who manufactured glucose?

A. We used to at different times, that is, years gone by.

Q. Have you ever had any of this article billed to you other than glucose?

A. No sir.

Q. Have you ever in your business ordered it under any other name?

A. No sir.

Q. And has it ever to your knowledge been known to the trade under any other name, that is, to the manufacturers of candy, in your business, under any other name, until this shipment that you have spoken of?

A. Not that I know of.

Q. There is a sample, Exhibit number 1, what would you say as to that being the color of the article?

A. That's about it.

Q. Isn't it somewhat thinner than you buy?

192 A. That is somewhat thinner.

Q. I show you another Exhibit, 1a, and ask you how that compares with the article you purchase?

A. We have had it some times as dark as that.

Q. Have had?

A. Yes.

Q. That would be a little darker than you generally get it?

A. Generally, yes.

Q. Does it some times with age change in color somewhat?

A. Not that I know.

Q. You keep it in the barrels?

A. Yes sir.

Q. You don't know what the effect would be if it were separated out and exposed to the light in a small jar?

A. No, that I couldn't say.

Cross-examination by Mr. FAIRCHILD:

Q. This glucose that you have referred to was the unmixed glucose, wasn't it, that is, it wasn't mixed with refiners' syrup and cane syrup and prepared for table use?

A. We just call it glucose, and that's all.

Q. Well you didn't notice my question. This was just the glucose alone, it was unmixed with anything else, wasn't it?

A. The last bill I got was marked "unmixed."

Q. Well, was it simple glucose that you got, or was it glucose mixed with cane-syrup and prepared for table use?

A. No, simply glucose.

Q. You say that that article used in the manufacture of confectionery is known as glucose?

A. That is what we always called it.

Q. You have never called it anything else?

A. No.

193 Q. You are not attempting to state what name this article has when it is mixed with cane syrup or refiners' syrup and prepared for table use?

A. No, I don't know anything about that.

Q. Well, you have heard of Karo Corn Syrup, haven't you?

A. No, excepting what I seen in the papers lately, that's all.

Q. What you see in the paper, you say?

A. What I read in the newspapers.

Mr. OLIN: Lately, he said.

Q. The last bill you say was billed to you "Corn syrup, unmixed"?

A. Yes sir.

Q. You never got a bill before that billed in that way?

A. No sir.

Q. Did you receive any communication from the company giving any reason for this change of name just at this time for the unmixed article?

A. No sir.

Redirect examination by Mr. OLIN:

Q. This Exhibit which I show you marked Exhibit A, was that billed to you in that way?

A. Yes sir.

Q. By this Corn Products Company?

A. Yes sir.

194 THOMAS F. PENDERGAST, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. You live where?

A. Madison.

Q. And have for how long?

A. Ten years.

Q. And what is your business?

A. Manufacturer of confectionery.

Q. For how long?

A. Ten years.

Q. Here at Madison?

A. At Madison.

Q. Had you been at that business at any other place before coming here?

A. I had been connected with a manufacturing confectionery in Watertown.

Q. For how long?

A. Fifteen years before.

Q. What firm?

A. Woodard & Stone.

Q. Did they during those years use glucose in their manufacturing?

A. Yes sir.

Q. Have you used it ever since you started for yourself?

A. Yes sir.

Q. In what quantities have you used it?

A. About two or three cars a year.

Q. That would make about how many barrels?

A. About 150 barrels.

Q. And has that been about the amount that you have used since you have been in the city?

A. Yes sir.

195 Q. And before that at Watertown do you know how many barrels that company used?

A. Why they dealt in it much more extensively.

Q. Now, during all this time how have these goods been billed to you?

A. As glucose; that is, until the last bill.

Q. Was it ever billed to you here at Madison under any other name excepting this last bill?

A. Never before was it billed in that way.

Q. It was bought by your firm under what name?

A. Glucose.

Q. Now, did you deal with this Corn Products Company?

A. Yes sir.

Q. And you spoke of the last bill. How was that billed to you?

A. Corn syrup.

Q. Did you order it that way?

A. No sir.

Q. When was it that you obtained it billed in that way, about?

A. Why, in July, I presume, about.

Q. Of this year?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. The only glucose that you have ever used was in the manufacture of confectionery?

A. Yes sir.

Q. And that was unmixed glucose, that is, it wasn't mixed with cane syrup or refiners' syrup and prepared for table use?

A. It was glucose.

Q. That isn't my question.

Mr. OLIN: We don't claim anything of that kind at all from this witness. It was bought in barrels.

Mr. FAIRCHILD: It was bought in barrels and it was un-

196 mixed glucose.

Mr. OLIN: Certainly.

A. C. BLACKBURN, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Blackburn, what are your initials?

A. A. C.

Q. What is your business?

A. Wholesale grocer.

Q. Are you interested and connected with the Gould, Wells & Blackburn firm here in the city?

A. I am.

Q. And have been for how long?

A. Twelve years.

Q. You are wholesalers?

A. Yes.

Q. And you deal in what has been named here as corn syrup?

A. We do.

Q. And you deal in these glucose mixtures?

A. We do.

Q. And have for how long?

A. Since I have been connected with the concern.

Q. Now since the enactment of the law of 1907 requiring these articles to be named in a particular way, you have sold them, have you?

A. We have.

Q. You are selling still the articles manufactured by the Corn Products Company?

A. We are.

Q. That you sell, do you not, under the name of corn syrup?

197. Q. Which do you mean, their Karo?

Q. Yes, the Karo?

A. Yes sir.

Q. Now, do you also deal in these mixtures prepared by other parties?

A. Yes we do.

Q. And how have you been selling those, labeled how, since the act?

Mr. FAIRCHILD: I object to that as immaterial, because the act of 1907 requires a certain branding, branding as glucose, and while some may observe the act and others may not observe it, and showing how some may have observed it since the passage of the act, doesn't influence this case at all.

Mr. OLIN: We want to show by this witness, and follow it up, that they have persisted in violating the law and have threatened the commissioner that if he sought to enforce the law, and have so advised their agents, that that company would have him enjoined, and we want to show, therefore, the only reason there is why this company hasn't obeyed the law up to this time, and that they haven't a right to draw an inference here that they have a right to do business in this state, because they haven't yet been prosecuted under the law.

Mr. FAIRCHILD: I don't understand that they can in this case go into a question like this, because the Corn Products Company is not a party to this suit and the issue against these defendants cannot be influenced by what my friend has just now stated, any threat that some third party may have made in regard to a refusal to obey

this statute. Now Brother Olin knows, as already appears here, that this particular company, with whom these defendants haven't dealt at all, has claimed from the very beginning that this act was invalid and for that reason have paid no attention to it.

COURT: Let me ask you Mr. Olin what effect upon the constitutionality of the law will the acts of any of the parties after
198 the passage have.

Mr. OLIN: I think perhaps the question divides itself into two parts. I think one part of this would be proper to show as against their claim, that it's entirely feasible and reasonable, as shown by the dealers here, to label this article just as the statute requires, and that it's now sold in this state by everybody else excepting this particular company or those who deal in their products under the name as the law requires.

COURT: Well, I will take that proof subject to objection, but I don't see that you have a right to go into any threats made by this company. He may answer subject to objection.

Exception by defendant.

Q. Have you been selling these mixtures under the name of glucose, say since the act of 1907, flavored with refiners' syrup?

A. We have, yes sir.

Q. Now, you stated that you are a wholesaler. Do you buy your product from the Corn Products Company direct or from other parties?

A. Direct.

Q. You buy it in single cans or in cases or boxes?

A. We buy it in cases.

Q. And how do you sell, in single cans, as wholesalers, or in cases?

A. In cases.

Q. According to the commercial usage do you know whether this article is sold by wholesalers to retailers in single cans?

A. Well, do you mean by single cans the small retail package?

A. No. I mean something such as you see here of these exhibits on the table.

A. Why, as far as I know the smallest package that the jobber sells to the retailer would be a case containing half a dozen or a dozen or two dozen cans.

Q. I show you here a box or case that I present and state whether that is similar to the cases.

199 A. That is the regular case, contains six of the large cans.

Q. And smaller ones twelve?

A. The smaller ones twelve. The still smaller ones twenty-four.

Q. Is it marked on the outside as this is, Karo Corn Syrup?

A. I think it is.

Q. Corn Products Company?

A. Yes sir.

Q. With the corn syrup trade mark?

A. Yes sir.

Q. On the sides of the case?

A. I think it also has a marking on the ends, if I recollect.

Q. It has on two sides, hasn't it, this one?

A. Yes.

Mr. OLIN: We offer that in evidence.

(Marked Exhibit 36.)

Q. Just to get it accurate here, taking one side, the brand contains in the center a circle, doesn't it?

A. Yes.

Q. About five inches across?

A. Well, I never measured it.

Q. Well, judging from appearances, it would be somewhere near there, wouldn't it?

A. Yes.

Q. And in that is "Karo" in large type and below "Karo Corn Syrup", and below that "Trade Mark".

A. Yes.

Q. Then over to the left is the word "Karo" is there not?

A. Yes.

Q. And over to the right is "Corn Syrup" isn't there?

A. I think they are all just about alike.

Q. Well, you find that there I mean?

200 A. Yes.

Q. And then over to the left and below that you find what?

A. Corn Products Manufacturing Company.

Q. Well, to the left you find "Corn Products" and over to the right, carried across is "Manufacturing Co."

A. Yes.

Cross-examination by Mr. FAIRCHILD:

Q. Did the article that you bought come in a box like that, Mr. Blackburn?

A. Why as near as I can recollect, without having the cases side by side, I would say that they were identical.

Q. And the can itself was marked how?

A. Marked as this can is here "Karo Corn Syrup".

Q. Did you purchase it before this law of 1907 went into effect?

A. We purchased it before and since.

Q. How long before?

Q. Oh, I can't tell you that. We have purchased this brand of syrup ever since it was put on the market.

A. Well, that is how far back? This Karo brand was put on the market in 1903, wasn't it, about that time?

A. I couldn't recall the ancient history of it. I know we have handled it steadily.

Q. By wholesale entirely?

A. Yes sir.

Q. You sell where?

A. We sell here in the city and immediate neighborhood. Entirely within the state.

Q. And you buy from out of the state?

A. We buy from the manufacturers.

Q. And it is shipped to you from Davenport?

A. It is shipped to us from Davenport.

Q. Iowa?

201 Q. Yes sir.

Q. You said that since this law of 1907 went into effect you had sold it under another name?

A. We haven't sold Karo under any other name.

Q. You haven't sold Karo under any other name?

A. No. We may have sold a similar product.

Q. From whom—bought from whom?

A. Bought from the Corn Products Company, and from others.

Q. And so dealt in by wholesale?

A. Yes sir.

Q. You mean a fancy name, a different name from Karo?

A. A different name than Karo.

Q. Did you buy it under the name of glucose?

A. Yes sir, "Glucose flavored with refiners' syrup".

Q. Did you give orders as to how it should be labeled?

A. We did.

Q. Gave special orders as to how it should be labeled?

A. We did.

Q. To the Corn Products Company?

A. To the Corn Products Company and others.

Q. That is, any that you have dealt in under any other name than under the name of "Glucose flavored with refiners' syrup" was labeled by your orders?

A. Yes sir.

Q. And special request?

A. Yes sir.

Q. Is it stated on the label that it was specially prepared for your firm?

A. I think it does. I am not positive, but I think it does.

Q. Are you able to recall how long you have dealt in corn syrup?

A. I would have to go back of our beginning here.

Q. You would have to go back of your beginning here?

202 A. Yes sir.

Q. You mean that it was on the market as corn syrup when you commenced business here?

A. It was on the market as syrup. I wouldn't say that it was on the market as corn syrup, because I don't remember.

Q. You don't remember when you first knew of it as corn syrup?

A. No sir, I don't remember the date.

Q. Was it before the Karo brand came out?

A. Do I remember when the corn syrup was known as corn syrup?

A. Yes

Q. Are you trying to find the—I don't quite understand your question, Mr. Fairchild.

Q. I say, did you know of it as corn syrup before the Karo brand of it came out?

A. I don't think I did.

Q. Did you know of the Kairomel brand?

A. No sir.

Q. You have never known but one brand of it then?

A. I have known the Golden Glory brand.

Q. Do you know whether that brand came out before or after the Karo brand?

A. I know that we sold that brand before we sold the Karo.

Q. And as corn syrup?

A. As corn syrup.

Q. And you began to sell Karo as soon as it came out, didn't you?

A. I can't tell you.

Q. That is, as soon as it was put on the market?

A. As soon as it was put on this market, we began to sell it.

Q. I call your attention to Exhibit 28. Is that the brand? Just look at that.

A. Golden Glory is the brand. Now whether this brand was first put on the market—

203 Q. I would ask you if that is the brand?

A. That is the brand.

Q. Who did you order from when you first took Karo?

A. The Corn Products people under their former name.

Q. What was the name then?

A. I think they were the Glucose Refinery Company.

Q. That may have been a predecessor of this company, may it not? instead of being the same company?

A. I presume it was.

Q. Can you tell how far back it was when this commodity was not known as corn syrup in your dealing?

A. I couldn't give you any exact date.

Q. You used to sell syrup under different brands, didn't you?

A. Yes sir.

Q. Just as fancy brands of syrup?

A. Yes sir.

Q. Different brands?

A. Different names.

Q. And you got them from different places, different companies?

A. Yes sir.

Q. Was it this same article?

A. I think it was. It had the same taste and the same appearance.

Q. Did you get it from the same parties?

A. Yes sir.

Redirect examination by Mr. OLIN:

Q. You answered in answer to questions put by counsel that you had been purchasing glucose mixtures from the Corn Products Company labeled as such, but labeled as such at your request specially?

A. Yes sir.

Q. How did that happen to occur, why did you make any such request?

A. In order to have the label comply with our interpretation of the law of the state.

204 Q. You had examined that subject, had you, and concluded that the law required it?

Mr. FAIRCHILD: I object to that.
Objection sustained.

Q. And they have been selling you articles of that kind labeled "Glucose mixed with refiners' syrup" or "flavored with refiners' syrup"?

A. They have?

Q. And you have been selling that to the public or to the retail dealers?

A. Yes sir.

Q. You were asked also something about the Golden Glory brand. Is that a brand that is still being put up by the company?

A. I believe it is.

Q. At the present time?

A. I think so. I see it in the stores.

Q. I show you a can marked for identification Exhibit 37 and ask you to look at it and state whether that article or an article thus branded is being put on the market now?

A. This brand of syrup, I can't say whether the wording is identical, I haven't examined it closely, is on the retailers' shelves at the present time. That would be my answer to the question.

Q. Here in this city?

A. Yes sir.

Q. Do you recall, Mr. Blackburn, the fact that in 1905 there was a so-called food law passed in this state, two years before this legislation of 1907?

A. Yes sir.

Q. I call your attention to that fact simply to fix in your mind the date. Do you recall now whether you were selling here in this city any of these glucose mixtures prior to the enactment of 1905 as corn syrup?

205 A. No sir, we were not selling them as corn syrup—I think not.

Q. But after that act was passed you did sell them as corn syrup, did you not?

A. Yes sir.

Q. And until the legislation of 1907 you continued to sell as corn syrup?

A. As corn syrup.

Q. Among other brands?

A. Yes sir.

Recross-examination by Mr. FAIRCHILD:

Q. Did you sell these syrups prior to 1905?

A. We did.

Q. Didn't you sell Karo Corn Syrup prior to 1905?

A. I think so.

Q. Karo Corn Syrup?

A. We sold Karo, whatever brand it had on it.

Q. Well, did you ever see a can of Karo that hadn't the words corn syrup on it, Karo Corn Syrup?

A. Not that I can recollect. I understood Mr. Olin's question to be these syrups, to include all of the different syrups.

Q. Well, your answer included them all and that answer included Karo.

A. Well, we sold Karo however it was branded.

Q. Well, just look at that can right before you.

A. The label looks about the same as it always does.

Q. I show you Exhibit C and ask you to look at that carefully, and state if that isn't the label under which you have always sold that article.

A. As near as I can recall it is, but I don't recollect all the wording.

Q. But it has all the appearance of the label you have always sold it under.

206 A. The label looks familiar.

Q. As the one that you sold this article under as soon as it came onto the market?

A. As soon as it came onto this market. It may have been in other markets before.

Q. Can you tell approximately when this came onto this market?

A. I could not without going to the books to find when we first bought it, but I should say that it was at least five years.

Redirect examination by Mr. OLIN:

Q. That's your best recollection now, and this is the latter part of 1908?

A. Yes sir. I should say that we have been handling it five years, if not longer.

Q. That would make it then about the year before the legislation of 1905?

A. Yes, two years.

207 FRED BODENSTEIN, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Bodenstein, you live here in the city?

A. Yes sir.

Q. And your business is retail grocer?

A. Yes sir.

Q. Are you familiar with what is called corn syrup?

A. Yes sir.

Q. As such grocer you have sold some of that article?

A. Yes sir.

Q. And you purchase it from whom?

A. Some times from Gould, Wells & Blackburn, some times out of the city.

Q. And when you purchase it you purchase it to sell it as a retailer?

A. Yes sir.

Q. When you purchase it from these others, you purchase it from wholesalers?

A. Yes sir.

Q. Now, the wholesaler sells it to you in what form of a package?

A. In wooden cases, different packages.

Q. Does he sell it to you in separate cans, such as you see it here on the table?

A. No sir.

Q. You don't buy it that way?

A. No sir.

Q. Do you buy it in cases similar to what I show you now that has been marked here as Exhibit 36?

A. Yes sir.

Q. And was it branded that way?

A. I believe so.

208 Q. That you purchased from this particular company I mean?

A. Yes sir.

Q. The individual cans that you buy, are they addressed to any particular person?

A. No sir.

Q. They are taken out and put on your shelves and sold separately?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. You buy, you stated, from Mr. Blackburn and other parties?

A. Yes sir.

Q. Other parties where?

A. Chicago.

Q. What concern do you buy from in Chicago?

A. Just lately Sprague, Warner & Company and Reid-Murdock.

Q. This Karo Brand.

A. Why, yes.

Q. How long have you been dealing in that Karo brand?

A. Ever since it was put upon the market.

Q. Do you know about how long that was?

A. Why, no, I don't remember just how long.

Q. Well, approximately?

A. Five years ago.

Q. Do you deal in it quite extensively?

A. Yes sir.

Q. As much or more than you do any other syrup?

A. As much. We supply the demand.

Q. Is there a demand for Karo Corn Syrup?

A. Yes sir.

Q. Called for as such?

A. Yes sir.

Q. During all that time?

A. Yes sir.

209 Redirect examination by Mr. OLIN:

Q. You spoke of buying from other concerns since the law of 1907 was enacted. Did you buy that under the name of corn syrup from other parties, or glucose mixtures?

A. Since 1907 I don't believe I bought outside of Gould, Wells & Blackburn.

H. N. McKINNEY, being first duly sworn as a witness on the part of the defendant testified as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. McKinney where do you live?

A. Philadelphia.

Q. What is your business?

A. Advertising.

Q. How long have you been in that business?

A. Thirty-three years.

Q. Advertising in what way?

A. Newspapers, magazines, billboards, street cars.

Q. For any particular class of business?

A. No sir, all classes.

Q. Have you had anything to do with the matter of advertising a commodity called Karo Corn Syrup?

A. Yes sir.

Q. When did you first begin advertising Karo Corn Syrup?

A. 1903.

Q. Where?

A. You mean in what section of the country?

Q. Yes sir.

Q. Fifteen or twenty states, as I remember it.

Q. In the East or West or both?

210 A. Both. In the West locally; in the East in the national publication.

Q. In Wisconsin?

A. Yes sir.

Q. You began in 1903 in Wisconsin?

A. Yes sir.

Q. To advertise in what particular manner?

A. In the newspapers.

Q. Dailies as well as weeklies?

A. Yes sir.

Q. In different nationalities?

A. Yes sir.

Q. Can you give us the names of the papers and the cities and towns in which they were located in which you advertised this article in 1903?

A. In Wisconsin?

Q. Yes.

A. Yes sir.

Q. Please give us the names?

A. The Democrat of De Pere, a weekly; The Gazette, daily, of Green Bay; the Northwestern Mail, weekly, of Madison; Pioneer, semi-weekly, of Mayville; Evening Telegram, daily, of West Superior; Leader, of Eau Claire; Commonwealth, daily, Fond du Lac; Reporter, daily, of Fond du Lac; Witness, weekly, of Plattsville; Chronicle, weekly, of Dodgeville; Union, weekly, Fort Atkinson; Chronicle, daily, of La Crosse; News, daily, of Milwaukee; Sentinel, daily, of Milwaukee; Evening Crescent, daily, of Appleton; Post, daily of Appleton; Journal, daily, of Racine; Enterprise, weekly, of Evansville; Journal, daily of Sheboygan; Century, weekly, of Viroqua; Press, daily, of Ashland; Journal, weekly, of Platteville; Wisconsin, daily, of Milwaukee.

Q. That is, the Evening Wisconsin?

211 A. Evening Wisconsin, daily, of Milwaukee; Recorder, daily, of Janesville; Independent, weekly, of Elkhorn; Evening Press, daily, of Menasha; Northwestern, daily, of Oshkosh; Times, daily, of Oshkosh; Independent, daily, of Chippewa Falls; State Register, weekly, of Portage; Banner, weekly, of Jefferson; Republican, weekly, of Antigo; Tomahawk, weekly, of Tomahawk; Times, daily, of Racine; Telegram, daily, of Sheboygan; Enterprise, weekly, of Oconomowoc; Herald, daily, of Chippewa Falls; Tobacco Reporter, weekly, of Edgerton; Democrat, daily, of Madison; Leader Press, daily, of La Crosse; Record, daily, of Wausau; Gazette, daily, of Janesville; Deutsch Pioneer, German, semi-weekly, Wausau; News, daily, of Beloit; Freeman, weekly, of Waukesha; Herald, German, daily, of Milwaukee; Times, daily, of Neenah.

Q. For how long did these advertisements run in these papers during the season of 1903?

A. They run about ten months.

Q. Were those advertisements accompanied with drawings or pictures of any kind?

A. Yes, sir.

Q. Have you those with you?

A. Yes sir.

Q. Will you please produce them?

A. I have a file of the advertisements, both national and local, from the very beginning.

Q. This is your office file, is it?

A. That is our office file and I very much want it back.

Q. Could you leave it here for some time?

A. Yes sir.

Q. If you have the assurance of getting it back later on?

A. Yes sir. It is a complete record of all the advertisements from 1903 to now, including those that are running at this time.

212 Q. Did you have a different advertisement for the dailies and the weeklies? ?

A. Yes sir, and different advertisements for the national publications.

Q. Look at your file and point out to us, if you will, the advertisements in the form in which they were published in the newspaper in Wisconsin that you have named?

A. It begins there where it is written on the page "Daily and Weekly Copy, 1903".

Q. And continues?

A. It continues to that advertisement that is marked number 21 at the top.

Q. I will call your attention to Exhibit E - 38 to 65 inclusive and ask you if those are the advertisements which you run in these papers that you have named?

A. They were.

Q. During 1903?

A. During 1903 and into 1904.

Q. I noticed quite a number of German advertisements. Those were carried in the German papers referred to in your testimony.

A. Yes sir. They are the same advertisements, as the English ones, only translated into German.

Q. Are you able to tell us how many issues per week all these advertisements appeared in the papers you have named in Wisconsin?

A. Not per week. I estimated that there were over 100,000 each issue of daily papers every day, some times three times a week; most of the dailies three times a week.

Q. Each issue?

A. Yes sir.

Q. You don't mean to say that it appeared in every issue of each paper?

A. In a weekly once a week, in most of the dailies three times a week, and in a few cases every day. Most of the dailies three times a week.

Q. What do you mean by saying each issue?

A. I mean that the circulation—we figure that the circulation of these papers is over 100,000 copies for every issue they print.

Q. You mean on a particular day?

A. Yes, taking the aggregate of the forty-eight papers.

Q. Well, how often would an advertisement appear?

A. In a daily three times a week if it was every other day, or six times if every day.

Q. Can you give us approximately the total number of appearances during the ten months in these different papers?

A. Ten months would be forty-three weeks, it would be at least one hundred thousand times forty-three, with the addition of whatever additional insertions there were in the daily papers of the week. I can't say from memory the circulation of each daily paper, so that I couldn't give an aggregate without knowing that in detail.

Q. You wouldn't be able to state the number of times that these advertisements appeared during the ten months in all these papers?

A. It was over four million on the face of it, it couldn't have been less than that, and as much more as the added insertions per week made it.

Q. Now, were these same advertisements carried throughout the dicerent states?

A. Yes sir.

Q. In the same form?

A. The same, with such slight variations as you see in the Boston papers where a special advertisement is put in, if it is a particularly expensive paper or for some particular reason. The matter is the same practically.

Q. Calling your attention to Exhibits 66 to 70 inclusive, 214 I will ask you if those advertisements appeared in any newspapers, and if so, where?

A. They appeared in the Boston, Mass. daily, Globe and Herald.

Q. Running for how long—that was during 1903?

A. 1903 into 1904.

Q. Were those in daily papers?

A. Yes sir.

Q. And appearing daily?

A. No sir.

Q. How often?

A. Probably three times a week, but possibly only twice a week in those two papers.

Q. Now, I will ask you in what publication of a general circulation and also circulating in particular localities extensively other advertisements appeared during that year 1903?

A. The Ladies Home Journal, monthly, Philadelphia; Saturday Evening Post, weekly, Philadelphia; Collier's Weekly, New York; Young People's Weekly, Elgin, Illinois; Housekeeper, monthly, Minneapolis; Sunday School Times, weekly, Philadelphia; Delin-eator, monthly, New York City; Cosmopolitan, monthly, New York City; Munsey's Magazine, monthly, New York City; Frank Leslie's Popular Monthly, monthly, New York City; Scribner's Magazine, monthly, New York City; Review of Reviews, monthly, New York City; Strand Magazine, monthly, New York City; Good Housekeep-ing, monthly, Springfield, Massachusetts; Christian Herald, weekly, New York City; Christian Endeavor World, weekly, Boston, Massa-chusetts; Woman's Home Companion, monthly, Springfield, Ohio; American Boy, monthly, Detroit; Christian Advocate, weekly, Bos-ton, Mass.; Central Christian Advocate, weekly, Kansas City, Mis-souri; Western Christian Advocate, weekly, Cincinnati; Epworth Herald, weekly, Chicago; Christian Advocate, weekly, New York; Observer, weekly, New York; New Metropolitan, monthly,

215 New York; Everybody's Magazine, monthly, New York; Outlook, weekly, New York; Success, monthly, New York; What to Eat, monthly, Chicago; Presbyterian, weekly, Philadelphia; Lutheran Observer, weekly, Philadelphia; Lutheran Standard, weekly, Philadelphia; Baptist Commonwealth, weekly, Philadelphia; Lutheran, weekly, Philadelphia; Christian Instructor, weekly, Phila-delphia; Episcopal Recorded, weekly, Philadelphia; Four Track News, monthly, New York. And then in addition to that I have the daily papers of New York and Brooklyn. I don't think that would come under that head.

Q. Were those of general circulation?

A. Yes sir, national circulation.

Q. And then you spoke about others, you have some others.

A. New York City dailies.

Q. And Chicago city dailies?

A. New York City. On this list I have simply the Sunday papers in Chicago. The Chicago daily papers were used.

Q. That is, the American, News, Record Herald, Tribune and Post?

A. I don't remember whether the American.

Q. Have you a list of these there?

A. No, I haven't a detailed list of those papers. They come under the head of local papers. I have each state. That you see is simply the Sunday issue.

Q. The Sunday issue?

A. There is only one Chicago paper there, the Record Herald.

Q. I will ask you if you inserted it in the large daily papers?

A. In Brooklyn, Chicago, New York, Philadelphia, Pittsburg, St. Louis.

Q. Now, I will ask you to point out in this record that you have brought here the advertisements that appeared in these different papers of national circulation, referring to Exhibit 71, 72, 73 and 74—will you state in what papers those appeared?

216 A. Those appeared in the papers of national circulation.

Q. In all those of national circulation that you have named in that list?

A. Yes sir. The same advertisement did not appear in all of the papers. We made different advertisements for the different papers.

Q. Now, referring to Exhibits 75, 76, 77 and 78, will you state in what papers those advertisements appeared?

A. The papers of National circulation.

Q. Out of the list that you gave us?

A. Yes sir.

Q. Now, 79 and 80, will you state in what papers they appeared?

A. 79 appeared in the Sunday School Times and number 80 appeared in Success, published monthly in New York.

Q. That is a magazine?

A. Yes sir.

Q. Referring to Exhibits 81 and 82, in what papers did those appear?

A. 81 appeared in Collier's Weekly of December 1903, and 82 appeared in the Western Christian Advocate, weekly, published in Cincinnati.

Q. For how long did those appear?

A. One insertion.

Q. In each case?

A. In each case, yes sir. They were full pages.

Q. Calling your attention to Exhibits 83 and 84, I will ask you in what papers those appeared?

A. 83 appeared in the Ladies Home Journal, monthly, Philadelphia, and 84 appeared in the Young People's Weekly of Elgin, Illinois.

Q. How many issues?

A. One insertion.

217 Q. That is a paper of national circulation?

A. Yes sir.

Q. Well were those full-page advertisements?

A. Yes sir.

Q. Referring to Exhibits 85 and 86, in what papers did those appear?

A. 85 appeared in the Christian Endeavor World, published in Boston weekly. 86 appeared in the Woman's Home Companion, published monthly in Springfield, Ohio.

Q. Are those full page advertisements?

A. Yes sir, full page.

Q. How many insertions?

A. One insertion.

Q. I call your attention to Exhibits 87 to 90 inclusive and ask you in what papers those appeared?

A. Number 87 appeared one time in the Christian Advocate, weekly, of New York. 88 one time in the Central Christian Advocate, weekly, of St. Louis, and now at Kansas City. 89 appeared one time in the Epworth Herald of Chicago.

Q. Exhibit 90?

A. One time in the American Boy, monthly, of Detroit.

Q. Calling your attention to Exhibits 91, 92, 93 and 94, I will ask in what papers those appeared?

A. 91, 93, 94 and 95 appeared in the general list of national publications. 92 appeared one time in the Christian Herald, weekly, of New York City.

Q. When you say national publications, how long did those run?

A. They ran for the same length of time as the other, ten months, but varying sized advertisements.

Q. Number 97?

A. Number 97 was a full page advertisement in the Youth's Companion, weekly, Boston.

218 Q. One insertion?

A. Washington's birthday number of 1904.

Q. Calling your attention to numbers 98 and 99, I will ask you in what papers these appeared?

A. 98 and 99 were part of the series of advertisements for the national publications.

Q. During the year 1904?

A. 1903 and 1904.

Q. Calling your attention to Exhibits 100 to 104 inclusive, I will ask you in what they appeared?

A. Number 100 was a full page advertisement in Collier's Weekly, issue of April 2, 1904. 101 a full page issue in Delineator, a monthly, of New York, issue of December, 1903. 102, full page in Cosmopolitan, monthly, of New York.

Q. What date?

A. I haven't the date of that.

A. What year.

A. Well, it was probably December of 1903. It comes right in with the December, 1903, magazines. It is about that time

anyhow. Exhibit 103, a full page in the Sunday associated magazines.

Q. What is that?

A. That's a combination, the Boston Post, the New York Tribune, the Philadelphia Press, the Chicago Record Herald, Pittsburgh Post, and the St. Louis Republic. They all use that magazine in their Sunday issue of the paper.

Q. It appeared in all of those?

A. It appeared in all of those.

Q. Have you the date?

A. I haven't the date of that.

Q. When would that be, some time in 1903, late in 1903, 219 or early in 1904?

A. Yes. 104, full page that appeared in Good House-keeping, if I remember rightly. That was the first advertisement that was put out, April, 1903.

Q. Referring to Exhibit number 105, I will ask you in what papers that advertisement appeared?

A. That is one of the regular daily papers. It is a series of daily papers all over the country. That is the last of 1903 and 1904.

Q. What is the date of that?

A. I haven't the date of that. That is one of those series that ran through the ten months.

Q. Can you tell us approximately, Mr. McKinney, what was the circulation of these national publications as you have given them?

A. Not less than twelve million each issue, probably a good deal more.

Q. In connection with your advertising in the newspapers in Wisconsin, did you advertise in any other way?

A. Not in 1903 and 1904.

Q. Did you begin another series of advertisements later on, say in 1906?

A. In 1907.

Q. Well, did it begin earlier than that?

A. No. You mean in Wisconsin.

Q. Yes.

Q. No. 106 is Pennsylvania.

Q. Well, in 1907 and 1908 was this campaign of advertising continued?

A. Yes sir.

Q. In the same way and in the same papers?

A. No—

Q. I hardly think that is a fact.

220 A. It was not in the same papers.

Q. Have you a list of the papers?

A. Yes sir. Do you refer now to the whole country, or only to Wisconsin?

Q. To Wisconsin.

A. In 1907 we used both newspapers and billboards in Wisconsin.

Mr. OLIN: I wish you would fix the date when you commenced that in Wisconsin.

A. In the fall.

MR. OLIN: After the 1907 law was passed?

A. In the fall of 1907.

MR. FAIRCHILD: I don't believe myself that that's competent proof.

MR. OLIN: If the court lets any of it in, I have no objection to the other.

(Recess of ten minutes.)

MR. FAIRCHILD: In view of the fact that Brother Olin went into the question of how this article had been sold since the passage of this law of 1907 here in the city, went into it against my objection, I think for that reason that these advertisements and the continued campaign advertising of this article are material, so I will continue them.

MR. OLIN: I don't object to your continuing them, but I don't quite like the reason you give for it.

COURT: That testimony may be received subject to the objection.

Q. I show you Exhibits 106 to 116 inclusive and ask you if those appeared in any newspapers and where and when?

A. They were a part of the regular series of advertisements run all over the United States and in Wisconsin as well as a part of the campaign.

221 Q. During what year?

A. 1907 and early 1908.

Q. Did those appear in the local as well as the national publications?

A. Appeared only in what we term local—daily and weekly.

Q. Have you the papers in Wisconsin in which these advertisements appeared?

A. Yes sir.

Q. Now, without burdening the record of going over the names, I will ask you how many newspapers in Wisconsin these advertisements appeared in and whether they were selected from different localities in the state—prominent publications?

A. Yes sir, there were ninety dailies and weeklies scattered all over the state; intended to cover the state.

Q. You selected them yourself?

A. Yes sir.

Q. With special reference to making the advertisement as public and conspicuous as possible?

A. Yes sir, and cover the state as thoroughly as possible; the same as we did the other states.

Q. These continued for how long?

A. About six months, between six and seven months.

Q. And these same advertisements you saw appear in the local publications in other states?

A. Yes sir.

Q. In how many states of the Union?

A. I can't answer that definitely, but about twenty as I remember

it. Oh, I can answer it. Illinois, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, Pennsylvania, Wisconsin, Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont.

Q. How many in all there?

222 A. Sixteen.

Q. Was your advertising as extensive there proportionate to the size of the state as in Wisconsin?

A. Yes sir. There were 1429 papers in the sixteen states—local papers. Ninety of them were in Wisconsin.

Q. Can you give us approximately the total number of issues in Wisconsin of these advertisements during those six months?

A. I figured up somewhat carefully and they will average I am sure 180,000.

Q. For each issue?

A. For each issue.

Q. Can you give us approximately the aggregate number in all the issues?

A. Thirty times 180,000 would be about 5,400,000 wouldn't it? That was an under-estimate.

Q. Did your national publications continue this same advertisement?

A. Not so extensively. We used more local papers and less national papers.

Q. But you did use a considerable number of the nationals?

A. Only the Ladies Home Journal, Delineator, Woman's Home Companion and Good Housekeeping, if I remember rightly.

Q. These national publications that you selected for the year 1903, are they publications extensively circulated throughout the United States?

A. Yes sir. The Ladies Home Journal has a million and a quarter, the Saturday Evening Post over eleven hundred thousand each issue, scattered over the United States.

Q. Were these selected with reference to the circulation of the publications?

A. Yes sir.

223 Q. I will call your attention to Exhibits 116 to 129 inclusive and ask you whether those advertisements appeared in the Wisconsin papers?

A. They did. They are a part of the regular series that appeared all over the country.

Q. And for the six months that you referred to?

A. Yes sir.

Q. During the year 1907 was there any billboard advertising?

A. Yes sir.

Q. In Wisconsin, I mean?

A. Yes sir, we used 1192 billboards.

Q. What are the size of these billboards approximately and what do they contain?

A. An eight sheet poster, what we call an eight sheet poster. That

is about 9 x 10 approximately; I haven't measured it. It is what is known regularly as an eight sheet poster.

Q. About ten feet?

A. About that.

Q. Where were they put up?

A. In all of the towns and cities of Wisconsin that had a regular billboard service.

Q. Did you have a specified length of time?

A. Yes, they were up two periods of four weeks each.

Mr. OLIN: Give the date?

A. I can't give the date.

Mr. OLIN: Can you give the first date?

A. No, I can not, but in all probability it was October. It might have been September.

Q. What did these billboards contain as to the material of the advertisement?

A. There was very little wording on them. They contained a large cut or picture of the can itself with the wording as it is
224 on the can.

Q. Such as this Exhibit C.

A. An exact facsimile of the can. Then some phrase. On some of them I remember we used the phrase "Best spread for daily bread".

Mr. OLIN: You used "corn" didn't you?

A. I don't recall any corn on the poster, but yet, there may have been, but I think not. I think we tried to show the can in its original color so that the consumer would know it when she saw it.

Q. The can and the lettering on the can had a prominent part in the poster?

A. I think every poster had a facsimile of the can.

Q. A large size facsimile?

A. Yes sir. The can was the largest thing on the poster in some of them. In others there was some other picture and the can was smaller, but if I remember, each poster had a reproduction of the can in color and all.

Q. Now, all this advertising was done for whom?

A. For the Corn Products Company, Corn Products Refining Company.

Q. Did you carry on the same campaign of advertising in the year 1908?

A. Yes sir.

Q. In Wisconsin?

A. Yes sir.

Q. And in the nation?

A. Yes sir.

Q. And as extensive or more extensive?

A. More extensive. In 1908 we advertised in street cars.

Q. You used advertising space in the street cars?

A. Yes sir.

Q. In Wisconsin?

A. Yes sir.

225 Q. On all the lines in Wisconsin?

A. Practically. I wouldn't say every line. There were 623 street cars used.

Q. Did you have anything to do with the preparation of this Karo brand?

A. Yes sir.

Q. Were you the originator of it?

A. Yes sir.

Q. With that trade mark?

A. Yes sir.

Q. Can you give us the date when it was trade-marked?

A. No, I cannot. It would either be 1902 or 1903 I think.

Q. At whose instance was that?

A. The getting up of the name?

Q. Yes.

A. Why, Mr. Matheson's, I suppose.

Q. I mean what company?

A. Oh, the Corn Products.

Q. Did you secure this trade mark yourself, do you remember?

A. I think not.

Q. Well, it was just the word Karo, was it?

A. Yes sir.

Q. As a designation of a syrup?

A. Yes sir.

Mr. OLIN: Well, have you got it there?

Mr. FAIRCHILD: Yes. I can put it right in now in connection with his testimony, if it is necessary.

Mr. OLIN: We object to it as immaterial and irrelevant.

COURT: Objection overruled. Received in evidence. Marked Exhibit 130, hereunto attached and made a part hereof.

226 Mr. FAIRCHILD: I offer in evidence these various Exhibits which I have called to the attention of the witness, and I offer them separately so that if Brother Olin wishes to object to any of them specifically he may do so.

COURT: You refer to the advertisements contained in the books.

Mr. FAIRCHILD: Yes.

Mr. OLIN: I object first to all the advertisements offered in evidence outside of Wisconsin.

Objection overruled.

Exhibits 38 to 129 inclusive are contained in a book marked on the front cover "Circuit Court, Dane County, Wisconsin, Filed April 17, 1909, Lawrence O. Larsen, Clerk," and on the back "16 Corn Products," and to be treated and considered as a part of this bill of exceptions to the same effect as though included therein and to be returned to the supreme court with such bill of exceptions as a part thereof.

Exhibit 130 is a duly certified copy of the Certificate of Registration, Statement, Declaration and Fac-simile in the matter of the Trade Mark "Karo" registered by the Corn Products Company Sep-

tember 15, 1903, in the Patent Office of the United States of America, at Washington, D. C. September 15, 1903, being certificate No. 41117.

Cross-examination by Mr. OLIN:

Q. Mr. McKinney, you have been following this business of preparing advertisements for how many years?

A. Thirty-three years Monday.

Q. You have worked for various firms or various interests in that line of business during this time?

A. Yes sir. By that you mean we have handled the advertising of other concerns.

Q. Yes.

A. Yes sir.

227 Q. You haven't confined yourself to the Corn Products Company?

A. Not at all.

Q. The first work you did, I understand, was some time in 1903?

A. Yes sir.

Q. Now, can you state how early you commenced advertising for that concern in Wisconsin in 1903?

A. In the fall of 1903.

Q. How late in the fall was it, Mr. McKinney?

A. I think we began the advertising in September. It was everywhere the same time, all over the country.

Q. Is there anything you have with you by which you can fix the exact date for Wisconsin?

228 A. No sir.

Q. You think it was not as late as the fore part of December?

A. No sir. I remember distinctly that it was intended to commence the campaign the middle of August, and it was delayed. I think we began in September, but that is a matter of memory.

Q. What instructions were given to you to guide you in the preparation of these advertisements?

A. None whatever.

Q. Well, none as to the product or article to be advertised?

A. We were given an appropriation to spend in advertising this article, then we studied it on our own account and made up the advertisements as seemed to us best and then submitted them to Chicago for approval.

Q. They were all approved of then by the officers of the company before they were put out?

A. Yes sir.

Q. Your testimony covered practically all of this book that you have, substantially all of it?

A. Yes sir. There are some in there that are not Karo at all, not syrup advertising at all.

Q. No, but so far as—

A. I have covered everything in there that related to corn syrup advertising, with the exception of a few in trade papers.

Q. Would you have any objection to my paging it in lead pencil here for convenience of reference?

A. No objection to doing that, or in ink, it wouldn't hurt it any. I should have done that myself before I came out here.

Q. You say you were employed by this company for this work, you prepared the advertising matter and submitted it to the company, or officials. Was all of the different advertising matter prepared at one time, or Exhibits from 38 to 65 inclusive—that

229 I think you testified went into the Wisconsin papers?

A. I think so.

Q. And submitted at one time?

A. I think so.

Q. Did you know anything about the way this product was manufactured?

A. Practically, no sir.

Q. Had you been informed by the officials?

A. Yes sir.

Q. Prior to your preparation of these advertisements?

A. Yes sir.

Q. You knew it was made from a starch?

A. Yes.

Q. And that that starch was obtained from corn, you understood?

A. Yes sir.

Q. You didn't understand them that it was made from the grain of the corn directly?

A. I understood that it was made from the corn directly in one process right through.

Q. You knew what corn-starch was?

A. When I was first told that I said I couldn't see it that way, they didn't make any starch before they made the syrup.

Q. Did you convince them?

A. I convinced them that syrup was the right word to use.

Q. Are you a food chemist?

A. No sir. I look to the housekeeper for my information, not to the chemist.

Q. You hadn't heard of glucose before this?

A. Not definitely until we got this concern.

Q. You never knew anything about the production of glucose?

A. No, I thought like everybody else that it was some nasty thing made out of dangerous articles.

230 Q. You thought that it was some nasty thing?

A. Yes sir.

Q. Well, is that what you expressed to these officials?

A. Yes sir.

Q. Did you convince them of that?

A. They agreed with me that it wasn't a good thing to misrepresent it, to advertise it as glucose.

Q. You haven't heard, had you, that the predecessor of this company was named as a Glucose Refining Company?

A. The Chicago Glucose Company when I first began to do the advertising.

Q. Its name at that time was Glucose Company?

A. Yes.

Q. Well, did you advise them that that was a sort of a nasty name; and that they had better get rid of it?

A. I did that a good many times.

Q. Well, had you any particular interest in the business?

A. Not at all.

Q. You just wanted a free opportunity for your advertising?

A. I wanted some product that could be advertised successfully.

Q. You wanted to succeed along that line in your business naturally?

A. Yes sir.

Q. And you wanted to do it in a way that you thought would catch the public best, take their fancy?

A. Catch them after they used it a long while.

Q. That it would take their fancy—that was a fact, wasn't it?

A. Yes sir.

Q. And you thought that glucose wasn't a good term to use?

A. Very sure of it.

Q. And that is the reason you advised against using it?

A. Yes.

231 Q. You think until that time that the term corn syrup hadn't been used by the company?

A. Oh, it had been used.

Q. Then that had been determined on before you had been employed?

A. They were using it on the cans then, "corn syrup".

Q. So you didn't devise that name for them?

A. Not corn syrup, no sir. It came up for discussion in putting this new product on the market as to what we should call it.

Q. Why do you speak of this as a new product. This was in 1903 and they had been selling the product, hadn't they, before that.

A. They had been selling a syrup and I asked them to put out an article that was better than anything they had put out, put it out under a trade mark, advertise it on its merits and get every new thing about it that was possible to get.

Q. Well, they had been making that article, as you understood, before?

A. They had been making that article before, but not the same—

Q. Well, a good article?

A. Yes sir.

Q. The quality of it was all right?

A. Yes sir.

Q. You didn't mean by what you said that you were going to have them improve the quality of the article?

A. If it was possible to do it.

Q. But you had no complaint to make of the quality of the article that they had already been making?

A. I knew nothing about that.

Q. Well, you had no reason to suppose that it wasn't a good article?

A. No.

Q. And they had been selling it under the name of corn syrup, as you understood?

232 A. Yes.

Q. And also under other names?

A. I don't know about the other names. I learned more about that here than I ever knew before.

Q. Now, the exhibits that began with 38 run continuously from page 13, as I have paged it, down to and including Exhibit 54 on page 29. Then where did that list of Exhibits go to that ran from 38 to 65 inclusive? Just locate these by pages.

A. It goes from page 36 to 46, but that is really a repetition of the others, simply being the German translations of the preceding advertisements.

Q. That is, you begin again on page 36 of the book with Exhibit 58, as I understand you?

A. Yes sir.

Q. And you then run to 65 inclusive on page 46?

A. Yes sir.

Q. And those last exhibits from 58 to 65 inclusive are the same as from 38 to 54 inclusive, excepting they are translated into German?

A. I think so. There may have been some change of design. One is the German set and the other is the English set.

Q. I see in your advertisement on page 14, being Exhibit 39, you speak of this as a "Golden Syrup".

A. Yes sir.

Q. That is a term you used frequently in these advertisements?

A. Yes sir.

Q. On page 15, Exhibit 40, you speak of this as a "Delicious table delicacy with all the goodness of the grain retained". At the same time you understood it was made from starch?

A. Not in the sense in which you put it.

Q. Well, from starch?

A. I understood just what was there.

233 Q. Did you understand that you would get exactly the same article if it had been made from the starch produced from potatoes?

A. No, I did not.

Q. Had you understood that, Mr. McKinney, would you have advertised it or recommended advertising it in this way?

A. Yes sir.

Q. So that don't change——

A. Not at all.

Q. Although you would get the same article exactly if you made it from the starch of potatoes?

A. I should then have insisted that they advertise it as "potato syrup".

Q. It wouldn't have had in that case, would it, any of the flavor or quality belonging to the grain corn?

A. No sir. I should say then that it had the quality and flavor of potato.

Q. Does it have either the quality or flavor of either the potato or the corn, as you understood at the time?

A. Well, I thought so.

Q. Well, thinking that it had the quality and flavor of the corn, you recommended advertising it that way?

A. Yes sir.

Q. You wouldn't have done it if you had known otherwise?

A. I would do it today, for I still have the same opinion.

Q. If it didn't have the quality and flavor of the grain corn?

A. If I knew that it didn't, was convinced that it didn't, I wouldn't surely.

Q. You wouldn't think that that was a fair way of advertising?

A. No, if it wasn't so.

Q. Well, if it didn't have any of the quality or flavor of the grain corn, you wouldn't consider it fair to advertise it in
234 that way to the public?

A. I wouldn't consider it so.

Q. You wouldn't have advertised it as you have here in Exhibit 41, which represents two large ears of corn put up in pyramidal form and in which is the advertising matter with the word Karo. Now, if you had known at the time that that article that you were advertising hadn't any of the characteristic flavor or quality of corn or grain, you wouldn't have thought it right to advertise it in that way?

A. No, if I was satisfied that it hadn't, I wouldn't.

Q. You would think that that would be intended to deceive people, wouldn't you?

A. If it wasn't so.

Q. Now, take again as an illustration, Exhibit 43 on page 16, where you have the advertising cut encircled by the stalk of the corn, haven't you and the leaf?

A. Haven't we got the ears of corn as well?

Q. Well may be you have. Do you see any?

A. Yes.

Q. Well, it represents the corn growing on the stalk.

A. Yes sir.

Q. And you have headed it prominently "Essence of the corn".

A. Yes sir.

Q. "Drawn from the strength-giving portion of the kernel and refined to absolute purity". Now, if you had known that this article didn't have any other quality than what it would have had if made from a starch produced from potatoes, you wouldn't have advertised it that way, would you?

A. I think I would, if it came straight from the corn, I certainly would have said so.

Q. If it didn't have any of the quality or flavor or characteristic of the grain corn?

235 A. Yes, if it was made from the grain corn, to my mind that is the proper thing to state, and I couldn't have stated anything else.

Q. Although the article didn't have any of the characteristic flavor or quality of the kernel corn?

Mr. FAIRCHILD: I object to that. What do you mean by "quality of the corn"?

Mr. OLIN: Why I think the witness is an intelligent witness. The flavor of corn.

Mr. FAIRCHILD: I object to that, because it would be impossible to have a syrup with the quality of corn.

COURT: Do you understand the question, Mr. McKinney?

A. Why, my way of putting the question would be, "Did I think that if anything was made from corn, with nothing else, it was correct to call it a corn product?" That is my point of view, that it was made purely from the kernel of corn, and no matter what it might be like it was perfectly proper to call it corn, because it came from that and from nothing else, and that any quality that was in that, unless some one told me that it was totally destroyed and some foreign matter put into it, I should call it a corn product—not chemically speaking, but as a housekeeper would understand it.

Q. Yes, but if the corn had been subjected to a chemical change which destroyed its characteristic as corn, if that were a fact, then would you say that it would be proper to advertise it as though it were made directly from the kernel of corn?

A. Yes, I would, from the every-day sense of it. You say they are destroyed and that conveys with it of course an impression and a meaning that may be as extended as you choose to put to it. If you have taken a loaf of bread and have ruined that loaf of bread so that it is no longer like bread, I don't think I would be justified in advertising that that was fresh bread; but if you have made bread and it is still bread and you haven't ruined it in any way, I should think I was perfectly right in saying that it was bread.

236 Q. Putting it in a little different way, I think you will understand it, you know what glucose is?

A. Yes sir.

Q. Now, look at the article I hand you, Exhibit number 1. That is mixing glucose I believe.

A. I don't know that.

Q. Well, would you think it a proper thing to advertise that kind of an article as an article "Being drawn from the strength-giving portion of the kernel of corn and having the essence of corn"?

A. Why, I don't think that its form or appearance would be any objection to it whatever.

Q. Not only the form, but the substance itself, as you understand it?

A. If a manufacturer told me that that was made straight from the kernel of corn, no matter by what process, so long as it was not

ruined, I wouldn't hesitate to call that a direct essence of the corn. I should think I was truthful in so stating.

Q. In the same sense that you would call sorghum or cane syrup that is manufactured one from sorghum and the other from cane and having the characteristic in each case of the article from which it is made, you would say that it would be proper to call one corn syrup and the other cane syrup?

A. No. You mean sorghum?

A. I mean sorghum syrup and the other cane syrup?

A. Yes.

Q. Now assuming there is no chemical change there and that it has the quality and flavor in the one case of the sorghum and in the other case of the cane, would you say that it would be proper in this case to name an article which you get from the starch as tho it were made directly from the grain and having the quality and characteristic of the grain?

237 A. I shouldn't think it made any difference, if it came from the corn itself, any more than when mother used to give me onion syrup, I never questioned how the onions were made or whether they were spoiled or not.

Q. Now, you understand, don't you, that this article is nothing more nor less than glucose with a percentage of refiners' syrup in it, the articles that we have been dealing with here in this case and that were sold, do you not, Mr. McKinney?

A. Yes sir, except that I don't think for common usage that glucose is the right word.

Q. Yes, you are not a chemist though.

A. No sir. I haven't been able to find a woman that knew what glucose was yet. We made our advertisements to make it plain to them.

Q. You wouldn't think, would you, of advertising number 1 as a "delicious syrup"?

A. I can't tell you. I don't know what it tastes like or looks like, number 1.

Q. You don't know what glucose tastes like?

A. Not that.

Q. Well, assuming it is ordinary glucose made from starch?

A. Now, will you repeat that question?

Q. Assuming that number 1 is ordinary glucose made from starch, you wouldn't think of advertising that would you, as a syrup "drawn from the essence of corn."

A. Yes, on that basis.

MR. FAIRCHILD: I object to that as immaterial, it does not appear that this was made from starch. It was made from the corn and starch happens to be one of the stages of the process of manufacture, that is all.

COURT: The answer may stand.

Exception by defendant.

238 Q. I think you said that you regarded glucose as a nasty, dirty article?

A. No sir. I said that that was the understanding that most people had of it that I know.

Q. Well, do you think that putting in with it ten or fifteen per cent of refiners' syrup changes it to an excellent syrup?

A. I don't think it was a nasty thing to begin with. I say that was the common understanding of it.

Q. Did you understand that this article was a superior quality of syrup?

A. Yes sir.

Q. Superior to cane syrup or sorghum syrup if made honestly from sorghum or cane? I don't refer now to the adulterations of it. It is a cheaper article, isn't it?

A. Usually, I should say that was purely a matter of taste.

Q. Well, as sold on the market it is regarded as a cheaper article, isn't it?

A. Yes sir. You didn't ask me as to cheapness. Cheaper things are some times better than others.

Q. And as an inferior article in the trade, as you understand it?

A. No sir.

Q. Is it an article that was "superior to any other syrup for making taffy or candy?"

A. Those who have tried it say so. My daughter says it is.

Q. You have had no experience excepting what your daughter tells you?

A. Not in candy making. We use it on the table in our family in preference to the other.

Q. What other?

A. In preference to maple syrup.

Q. Is it furnished to you by the corn products company?

A. No sir, it is bought at a grocery store at the regular price.

239 Q. I show you another advertisement, Exhibit 51 on page 26. The cut has jumped up to three ears, hasn't it?

A. Yes sir.

Q. And in this you speak of it, corn syrup, as "A new delicious table delicacy made from corn with the food value of the grain retained" don't you?

A. Yes sir.

Q. And yet all the time you knew that it was made from starch, didn't you?

A. No, I don't admit that in that way.

Q. You don't admit it?

A. No sir.

Q. Well, it's a fact, isn't it?

A. I wouldn't state so.

Q. You don't state so, do you, because this is starch made from corn first?

A. Well, I never understood that starch was first made.

Q. Well, if, in substance, without quibbling here at all, this article is made from starch and nothing else, that is, the unmixed article I mean—would you then say what you say here, that it's a "delicious

table delicacy made from corn with the food value of the grain retained”?

A. I think so, if I was told that the starch in the first place contained all the food value.

Q. Would you say that it was equally true if the starch had been obtained from potatoes?

A. No sir, I should say then “potato syrup”.

Q. Wouldn't you rather think it would be a more correct designation to say it was “starch syrup”?

A. It don't seem so to me.

Q. Provided the syrup in neither case, in the case of potatoes had none of the characteristics of the potato, and in the case of starch made from that it had none of the characteristics of corn?

A. As I look at it, it should be the name of the product from which it is made.

Q. Although the product from which it is made is starch in each case?

A. No sir, I think it should be the original product.

Q. Then it wouldn't make any difference whether the starch is made from corn or from potatoes?

A. I think it should be “corn” or potatoes”, whichever it is made from.

Q. On page 28, Exhibit 53, you state in the advertisement, do you not, “contains all the goodness of the most nutritive cereal grown”.

A. Yes sir, I suppose so. I don't question your reading of it. I will admit all that is printed there, Mr. Olin.

Q. Will you be so kind as to turn to Exhibit 66 for me, Mr. McKinney, Exhibits 66 to 70?

A. Yes sir.

Q. That series begins on page 66, does it not?

A. Yes sir.

Q. No I misled you. I don't mean page 66, but the Exhibit that is marked 66, the one that appeared in the——

A. Sunday School Times.

Q. In the Ladies Home Journal, etc.?

A. 66 is Sunday School Times.

Q. Did you prepare all of the matter in Exhibit 66?

A. None of it except the advertisement in the lower right-hand corner.

Q. Who got up the rest of it?

A. Mrs. Helen Armstrong.

Q. Is she your co-laborer?

241 A. We sent her some cans of Karo Corn Syrup and asked her to experiment with it and make up some recipes for us and they were so good we published them.

Q. Well, you don't mean she did that as a matter of charity?

A. No sir. She was just the same as the lawyers are. She was paid to investigate.

Q. Or expert advertisers?

A. Yes sir.

Q. Only we don't as to fees expect to compete with them. She is a business, does she, of preparing things of that kind?

A. No sir, she makes a business of teaching cookery. She is considered an authority on that.

Q. And you got that into the page for the housewife in the Sunday School Times, was it?

A. You will find that in a number of papers right along there.

Q. I think you have advertised, haven't you, in every Christian magazine and paper in the country, about?

A. Oh, no, a very small percentage of them.

Q. I see among others you got into the Chicago American?

A. My religion doesn't run that way.

Q. But your advertising does?

A. When the customers want it.

Q. Well, you have in these various advertisements done about every thing that would be possible with the pictorial art to represent this as a product coming direct from the kernel of the corn, haven't you?

A. That was our direct intention.

Q. That is illustrated very well, isn't it, in the Exhibit on page 48, being Exhibit 80?

A. Yes sir.

Q. Which is set in a frame of ears of corn?

242 A. Yes sir.

Q. And in the right-hand you speak of it as having "all of the strength-giving elements of the grain retained."

A. Yes.

Q. You say "Unlike ordinary syrup, its purity is protected, cleanliness assured, goodness guaranteed, by air-tight friction top tins", and so on. Was that characteristic only of this product?

A. It was a new tin got up especially at that time for this.

Q. Well, did they get it up before they wrote the advertisement?

A. While they were advertising it.

Q. Here is one that seems not to be introduced, that I will show, on page 50.

A. Before you do that shall I tell you the reason I skipped that? Because I can't recall where they are used.

Q. They were used somewhere?

A. Not necessarily. It rather proves that we did not use it. We often do that. The reason I didn't mention them was because I can't locate them and can't remember.

Q. Did you use any similar to it, having this on it, "A golden Syrup made from Golden Grain"?

A. I think you will find that in other advertisements.

Q. Here is another on page 53. I don't find that that is marked as an exhibit. Wasn't that used?

A. I think some of them are in. My recollection of them is that they were killed. I am not sure. I wouldn't say that they were not used, but that is my recollection, and I skipped them on that account.

Q. Do you know the reason why they were killed?

A. No.

Q. Here on 53 and 54 at the top you have got a pictorial representation of what?

A. Of a beehive. You will find that in other advertisements.

Q. You say this part of it is to represent a beehive?

A. I think so. Because it was so poor was the reason it was killed.

Q. Isn't it a fact that it was intended to represent a shock of corn?

A. No sir. Don't you see the bees coming out of it? It is a very poor beehive. I fancy that is what killed it.

Q. You say here "The bee will leave the sweetest blossoms for Karo Corn Syrup". Is that your experience?

A. That was reported to us by a California man.

Q. You wouldn't believe that would you?

A. A California bee man reported that he had put a barrel of glucose and that the bees——

Q. You always believe all you hear along that line?

A. Well, that was reported.

Q. You say also "Karo Corn Syrup is equal to honey in flavor and superior to it in purity and nutritive value." That you find there don't you?

A. Yes sir.

Q. Well, was that reported to you from California, or is that something you knew yourself?

A. No sir. That was a result of articles in the "Gleanings of Bee Culture" on the poisons of honey and the difficulty of getting pure honey.

Q. Well, that difficulty of getting pure honey was by reason of the large amount of glucose they found in it?

A. No, that isn't where they used the glucose. That was the trouble.

Q. Oh, you think if they had put the glucose in it would be all right?

A. The trouble with the bees was that they got the poison out of flowers.

244 Q. So it is your opinion that honey had better not be used?

A. If you read a file of Gleanings of Bee Culture at that time you would think that you didn't want to eat any.

Recess until 2 P. M.

2 P. M.

Cross-examination of Mr. McKINNEY resumed.

Q. Mr. McKinney, turning to page 28, Exhibit 53, which is one of the Exhibits introduced in evidence, in that you make this statement, do you not: "Corn syrup is the pure, golden essence of corn with all the nutritive elements so characteristic of this energy producing, strength-giving cereal retained".

A. Yes.

Q. That's there, isn't it?

A. I judge so.

Q. Well, now have you examined into this to see whether that was so or not?

A. No sir, not further than by inquiry.

Q. Do you know whether or not all the nitrogenous parts of corn are taken out and that none of it is in the starch from which this product is made?

A. I wouldn't know what the nitrogenous parts were. I am not a chemist.

Q. You don't know anything about that?

A. I am not a chemist at all.

Q. Well then, did you get this idea from the officials of this company? I suppose you were informed, weren't you, by them?

A. I didn't write those advertisements personally.

Q. Oh, I thought you did.

Q. Oh, no, the advertisement was prepared from a general
245 understanding that everything that was in the corn was to be mentioned.

Q. Now, you say at this time that you didn't write these?

A. No sir.

Q. Will you tell me who did?

A. Probably forty different people.

Q. Connected with the company?

A. Yes sir.

Mr. FAIRCHILD: What company?

A. Probably forty different people. We have about that many in that department.

Mr. FAIRCHILD: That is, in your company?

A. In our company.

Q. Are you a corporation?

A. No, sir, a firm.

Q. Well, were the facts upon which the writing was based furnished to you or your employes or firm by the Corn Products Company?

A. Not in detail.

Q. But in general?

A. In general.

Q. And then after it was put into shape it was submitted, as you have already stated?

A. Yes sir.

Q. This on page 31, being Exhibit 66, as I understand, was specially prepared for some Boston papers?

A. Yes sir, and used in them—Boston daily papers.

Q. That contains this, doesn't it: "A new syrup with a new flavor, Karo Corn Syrup, made from the portion of the corn kernel with all the nutritive strength-giving properties of the grain retained". You are familiar with that language, are you?

A. I judge it's correct.

Q. Well now what new flavor do you refer to there?

A. Why, new flavor of that Karo syrup when it was made.

246 Q. Well, did you understand that the flavor came from anything made from the corn?

A. No sir.

Q. Or that it came from something else?

A. It came from the cane.

Q. That is, from whatever was put into the mixture outside of the corn?

A. Partially so.

Q. You didn't understand that the corn or anything that came from the corn gave to the product any flavor?

A. I understood that it did.

Q. Well that was not what you had in mind when you spoke of the cane flavor?

A. No sir.

Q. Do I understand, Mr. McKinney, that you speak of any flavor connected with the article glucose, mixing glucose, used in the manufacture of this product—that there is any flavor to it?

A. It is my recollection as I tasted it I thought it was a flavor.

Q. Well, it is a flavor, if any, that belongs to glucose generally from whatever article it is made?

A. I don't know anything about glucose except as made from corn.

Q. And you don't know whether it would be the same so far as flavor is concerned, whether it was made from corn or from potatoes?

A. I do not.

Q. Well, now if it is the same, if the flavor, whatever you call it, if there is any, is the same, is the same whether it is produced from potatoes, starch of potatoes, or starch of corn, or starch from any other source, then there isn't any characteristic flavor as you understand it in connection with this corn syrup article that is due to the corn?

A. You put a lot of "ifs" in there, but I mean as to others
247 I have never seen anything made from any other product, I don't know what they taste like or the flavor.

Q. If that is true, your answer would be, would it not, that the flavor that you refer to depends entirely upon the mixing syrup that you put in?

A. If that is true, yet my recollection of the glucose, I think there was a flavor to it.

Q. Would you say there is any different flavor to it whether it is manufactured from the starch of corn or the starch of anything else?

A. I have never seen any other.

Q. In Exhibit 68, page 33, you speak of the "essence of corn" and use this language, do you not: "Drawn from the energy and strength-giving portion of the corn kernel".

Mr. FAIRCHILD: Now, your honor, I haven't made any objection to this line of inquiry by Mr. Olin, but I object to it now, any further pursuit of it, as incompetent. The only object in introducing this advertising was simply for the purpose of showing that this article had been extensively advertised as corn syrup.

Court: How is it material to continue the cross-examination of this witness upon matters which he says he does not know about and

upon advertisements that are before the court and speak for themselves.

Mr. OLIN: I think that would be the only objection. I was only going to get into the record certain parts of these.

Court: They are all before the court and you are at liberty to call the attention of the court to them, if you desire.

Q. Do you know the occasion of starting in what you called this second campaign or new campaign of advertising this product, in the fall I think you said, either September or October.

A. There was no special occasion. The only reason of the interruption was because of changes in the internal management of the company. It was originally intended to keep it up consecutively. It was simply a continuation of the matter that had been unavoidably postponed.

Q. Are you keeping it up now?

A. Yes sir.

Q. In all of the papers in Wisconsin that you have named?

A. There are some little changes for various reasons.

Q. You added in this state billboards and street cars?

A. We added this year street cars. Last year we added the billboards.

Q. Had you heard before you started on this second campaign of advertising of the enactment of our law here in this state?

A. No sir.

Q. You weren't informed of that?

A. No sir.

Q. Was there any particular person of the Corn Products Company with whom you particularly dealt in this business more than another?

A. Yes sir.

Q. Who was it?

A. It would depend upon what it was. In the beginning the appropriations came from the president, and the report of the details to Mr. Richman, I arranged them with Mr. Reichman. The appropriation came from Mr. Bedford. Wisconsin was never mentioned. It was simply the whole country.

Q. Well, I had reference more to the advertising matter. To whom did you submit this advertising matter before it was put out?

A. In the different years to different people.

Q. Well, take the year of 1903 and 1904, first the latter part of 1903.

A. The latter part of 1903 and 1904—Mr. Matheson saw them all.

Q. Was he here?

249 A. No, he was then president of the company. He is no longer president. I think Mr. Anderson, who is no longer with the company, perhaps went over them more with me than anybody else, although I am not quite sure. The fact of the matter was just this, that we were employed as experts and the matter was left in our hands practically. We did nothing without submitting

it, but the submission was simply that we might not make any palpable errors. We were trusted to manage the campaign.

Q. And to whom did you submit the matter in the campaign of 1907 and 1908?

A. Mr. Reichman in New York.

Q. Has the company an office in New York?

A. Yes sir.

Q. At what number?

A. 26 Broadway.

Redirect examination:

Q. Do you know whether the company to any considerable extent advertised through the medium of the press, locally or generally, this product, before you took hold of the matter?

A. They had not. Do you mean the Karo Corn Syrup?

A. Yes, the Karo Corn Syrup.

A. No, they had not.

Q. You referred to that as a new syrup I think, in answer to some of the questions my friend asked you?

A. Yes sir.

Q. Had that reference to the name that had been used or to the fact that it was the first time that it had been brought before the public in that way?

A. That and more. It was a new name coined especially for this purpose. It was a new brand, in which they endeavored to get a more attractive blend than they ever had had before. It was 250 a new method of pushing corn syrup.

Q. In the advertising matter you prepared, you understood and attempted to express the idea that this syrup that you were advertising came from corn, did you?

A. Yes sir.

Q. That was your understanding?

A. Yes sir.

Q. The syrup was extracted from the kernel of the corn?

A. Yes sir.

Q. Had you ever yourself made any tests or experiments of any kind to determine whether a syrup taken from corn had a distinctive, characteristic flavor?

Mr. OLIN: Now, are you trying to qualify him as an expert?

Mr. FAIRCHILD: I am simply, in a general way, attempting to meet all of your examination.

Mr. OLIN: Well, I cut it short because the objection was made that he didn't know about this.

Court: He may answer.

A. No sir.

Q. Would you say the same of a syrup made from potato-s?

A. Exactly. I never made a test of any syrup.

Q. Did you at any time understand when you were conducting this advertising that this article that you were advertising as corn syrup was produced from starch as you ordinarily understand that word?

A. No sir.

Q. You stated, I believe, that you supposed that it was manufactured in a continuous process from the kernel of the corn to glucose?

A. Yes.

251 Q. And then was flavored with some blend of some kind?
A. Yes sir.

Q. You understood, did you, at that time that the Corn Products Company was a large purchaser of corn?

A. Yes sir.

Q. From which to make this syrup?

A. I understood they were the largest commercial purchasers of corn in the country.

Recross-examination:

Q. Now, you have stated, Mr. McKinney, that this was a new blend.

A. Yes sir.

Q. Did you know anything about it yourself?

A. Yes sir. That is, I should explain that. A number of experiments were made with different proportions and different qualities and I tasted it and passed my judgment upon the different ones. Perhaps there were fifty of them.

Q. Well, are you an expert on blends?

A. No sir. It wasn't an expert they wanted. They had that; they wanted something from home.

Q. They got you as an expert as to how it would taste in a home?

A. They got me simply because I was interested in the success of it.

Q. Now, the fact is that this was simply putting out this glucose mixture under a new name—that's all it amounted to, wasn't it?

A. No. There was a difference in it. They had put out no such blend as they did at that time.

Q. You know that this mixture was composed of 85% of glucose and 15% of refiners' syrup?

A. I don't know that.

Q. Would it have made it a better or poorer quality if they had made it of 85% glucose and 15% cane syrup?

A. That is what it was.

252 Q. My first question was as to its being made up of 85% of glucose and 15% of refiners' syrup. Now I ask you if it would be a better or poorer article in your judgment if it were made of 85% glucose and 15% of cane syrup?

A. I don't know.

Q. Then you don't know which is regarded as the better article, cane syrup or refiners' syrup?

A. I do not.

Q. Would it have made a better article in your judgment if made up of 85% of glucose and 15% of maple syrup?

A. It wouldn't in mine.

Q. Well, in your judgment as a man that knows something about articles that are sold on the market to the public generally?

A. No, I think not.

Q. Is maple syrup a higher grade or higher priced article than refiners' syrup or a poorer article than refiners' syrup?

A. I don't know. I would suppose that the best quality of maple syrup—

Q. Well, cane syrup is a more expensive article than refiners' syrup?

A. I suppose it is.

Q. Refiners' syrup, as a matter of fact, is a low grade article?

A. I don't know what it is.

Q. Then you don't even know what that is?

A. No.

Q. Well, if it is regarded as a low grade article, a low grade syrup, and the product here that you speak of as a superior blend is made of 15% of that article and 85% of glucose, would you speak of it as having been anything new or superior in quality as a syrup?

A. I might or might not. That is a matter of taste.

253 Q. Well, I am not calling for your individual taste, as to whether it would suit your taste better, but giving your judgment in dealing with that article on the market, people generally would regard it as an inferior article as compared with an article made up of 50% or rather 85%, I will take it, of glucose and 15% of maple syrup?

A. I think from practical experience most people would prefer the other.

Q. Well, is that by reason you think of this catchy advertising, that has been done over the country?

A. No sir. The advertising simply introduced it. It must stand on the way the people like it.

Q. Then it is your opinion today that people like better an article made up of 85% of glucose and 15% refiners' syrup than they would if it was made up of maple syrup?

Objected to as improper cross-examination and immaterial.

Objection sustained.

254 C. J. BLAIR, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Blair?

A. Chicago.

Q. What is your business?

A. I am in the printing business, printing labels.

Q. How long have you been in that business?

A. I have been in it about sixteen years. That's as a salesman. I am not a principal.

A. As salesman?

A. Yes sir.

Mr. OLIN: You are not the printer then?

A. No sir, just a seller.

Q. With what concern are you?

A. R. J. Kittredge & Company.

Q. Have you been with that concern the whole time?

A. Oh, no, I have only been with them about six years.

Q. Were you with some one else before that in the same business?

A. Yes sir. With the United States Printing Company of Brooklyn.

Q. Have you ever had anything to do with the printing of labels for the Corn Products Company or Refining Company?

A. Yes sir.

Q. Did these labels relate to corn syrup?

A. Some of them, yes sir. The corn syrup labels began April 28, 1900, the first order for straight corn syrup labels.

Q. Have you with you samples of the labels that you caused to be printed?

A. A good many of them, not all of them. That is the one I refer to (indicating).

Q. That is the first one?

255 A. That is the first corn syrup label, yes sir.

Q. When was the first order placed with you for labels like Exhibit 131?

A. April 28, 1900. That is the Kairomel.

Exhibit 131 hereto attached and made a part hereof.

Q. State whether you continued the printing of those labels down to July 13, 1907?

A. Yes sir.

Q. That same brand?

A. The same brand.

Q. The Kairomel brand of corn syrup?

A. Yes sir, corn syrup. It never was called anything else.

Q. Can you pick out from that bunch of samples the next in order, if there was any particular one next in order?

A. There were a number of labels gotten up at this time for one of the companies, the Illinois Sugar Refining Company. They were all corn syrup labels.

Q. When was that?

A. 1884.

Q. 1884 or 1904?

A. The first order for the Illinois Sugar Refining Company was 1902; I should say the 28th of June.

Q. 1902?

A. Yes. That is the way it is taken off of our books in the office.

Q. Now, was this same label afterwards put out for the Corn Products Manufacturing Company?

A. Yes sir. The originals were Illinois Sugar Refining Company.

Q. Where Corn Products Manufacturing Company, Davenport, Iowa, now appears?

A. Yes sir, that is the idea. It was Illinois Sugar Refining Company.

256 Mr. OLIN: It was put out originally by the Illinois Sugar Refining Company?

A. Yes sir. I think some of them have that on it.

Q. Here are four on which appears Illinois Sugar Refining Company and you may look at those. They are Exhibits 132, 133, 134, 135. I will ask you if those were put out for that company and when?

A. We began putting them out in 1902 and continued all of them ever since, some more than others, it depends on which brand happened to be running the greatest.

Exhibits 133, 134 and 135 hereto attached and made a part hereof.

Q. Then after the Illinois Sugar Company was merged into or purchased by the Corn Products Manufacturing Company the name was changed at the bottom?

A. Yes sir.

Q. Otherwise the label remained the same?

A. Otherwise it remained the same.

Q. And those are used clear down—

A. To the present time.

Q. Well, I will confine it to July 13, 1907?

A. Yes.

Q. Now, here are two I see, the Davenport Syrup Refinery, Davenport, Iowa, those are Exhibits 136 and 137. Was this one of the companies, do you know, that was taken in later on by the Corn Products Company?

A. Yes sir, by the Corn Products Company.

Exhibits 136 & 137 hereto attached and made a part hereof.

Q. When did you begin to print those labels, those two?

A. Well, those were all started out about the same time, those were all new, the Anchor was the same.

Q. The Anchor continued down to July 13, 1907?

A. Yes sir.

Q. I show you Exhibits 138 to 142 inclusive and I will ask you if you can tell when you first began to print labels of those brands.

A. Well, with the exception of one, that's the Argo, that was made within the last two years.

Q. Exhibit 140?

A. Yes.

Q. Now, you will notice on this label the words "with cane flavor." I will ask you if those appeared on the label when the labels were first issued?

A. It did not.

Q. It did not?

A. No sir.

Q. That was inserted later on?

A. Later on. The original label was Corn Syrup, Illinois Sugar Refining Company, that was the changed name.

Q. I am getting at whether the label was changed later on by adding the words "with cane flavor."

A. It was.

Q. With that exception the label is the same, with the exception of the name of the company at the bottom?

A. With the exception of the name of the company.

Q. I will show you Exhibit 143, the Karo Corn Syrup label. There is no reference on that made to "cane flavor."

A. No sir.

Q. Now, I will ask you when you first begun to print that label?

A. May 21, 1903. It is one of the original labels.

Q. Can you state how many of these labels, together or separately, if you have them separately I wish it, but if not together, you printed for this company and delivered to them, or these companies that have been referred to, from the time the labels were first begun to be printed until July 13, 1907?

Mr. OLIN: How is that material?

Mr. FAIRCHILD: We will show that these labels were used in the sending out of this article broadcast, not only over the state
258 of Wisconsin, but over the whole United States.

COURT: Does your question refer to all labels?

Mr. FAIRCHILD: All these labels that I have called his attention to?

Mr. OLIN: I object to it as immaterial.

COURT: He may answer.

A. From 1902 to 1907 there were about two hundred millions of those particular labels. There are two individual items I can give the exact amounts on: Kairomel and Karo. Kairomel from the inception to 1907, about sixteen million, the reason I say about, is that on our contract we had the liberty of going over or under a certain percentage and as a rule we run it over, so I don't know just exactly how many, but that is pretty close. For Karo syrup, thirty-seven million. We might vary a million or two either way, more likely over than under.

Q. That is, you are more likely to have furnished them more?

A. Yes.

Q. Those were printed and delivered to the Corn Products Company?

A. Yes sir.

Q. And were those all in one order or different orders from time to time?

A. Different orders from time to time.

Q. As they were required?

A. Yes sir, our contract run for two years and we furnished all that was required during that time.

Q. Do you know whether you supplied them with all these corn syrup labels or not?

A. With all the corn syrup?

Q. Yes.

A. Yes sir.

Q. Have you during all of this time referred to from April 1900 to the present time?

259 A. Yes sir.

Exhibits 131 to 143 inclusive are hereto attached and made a part of this bill of exceptions.

Cross-examination by Mr. OLIN:

Q. Does your company supply labels for other concerns?

A. Oh yes.

Q. It does a general business along that line?

A. Yes sir.

Q. As I understand your testimony, generally speaking the printing of these labels began somewhere along in 1902?

A. Well, 1900, the Kairomel.

Q. The first 1900, but aside from that first one——

A. Yes, 1902.

Q. The first one is similar to one we introduced?

A. The same thing I think.

Q. 131. No, it differs I think in the name here. It says "Packed at the Chicago and Davenport Factories of Corn Products Company?"

A. Yes.

Q. The other was the "Glucose Sugar Refining Company" I think?

A. Yes sir.

Q. That would be later, would it?

A. Later, yes sir.

Q. As I remember Dr. Wagner's testimony on an exhibit we introduced here having that Kairomel brand on it, he says it was gotten up particularly for Michigan.

A. Perhaps he referred to that particular label, a certain percentage on here.

Q. I thought he referred to the name?

A. No, I think he referred to the percentage. Various states require different percentages and sizes. That is one of the originals. I brought that because I thought you might want to see the first one.

Q. And that has been used down to the present time?

260 A. That has been used down to the present time and still using it.

Q. That prints "90% pure corn syrup and 10% cane syrup."

A. I believe that is the formula there, yes sir.

Q. Do all of your labels as you remember use the term corn syrup?

A. I think latterly they use the term refiners' syrup.

Q. Now, this company is the Corn Products Company now. Did you understand that the previous Glucose Refining Company was merged into that?

A. Was merged into that, yes sir.

Q. It seems you have spoken of a number of companies here. One is the Illinois Sugar Refining Company?

A. Yes sir.

Q. I think you said these labels have been continued right down?

A. Yes sir. They were merged into the Corn Products Company.

Q. That was another company that was merged into the Corn Products Company?

A. Yes.

Q. Then was the Davenport Refining Company?

A. Yes sir.

Q. Or Davenport Refinery?

A. Davenport Syrup Refinery, yes sir.

Q. Was that also another company?

A. That is practically the same company, except the syrup was put up at Davenport.

Q. The brand was the same thing?

A. The brand was the same thing.

Q. What other companies that you know were merged in that Corn Products Company?

Objected to as improper cross-examination.

Objection sustained.

Q. Did you print labels for those different companies prior to the summer of 1902?

261 A. Yes sir. Well, I see you put the question "different companies." Prior to 1900 most of the labels were printed for the Glucose—

Mr. FAIRCHILD: He said 1902.

A. Prior to 1902 we printed them for the different companies, yes sir.

Q. What was the difference in the labels then as compared to what they were from 1902 on?

A. You mean prior to that time?

Q. Yes.

A. These corn syrup labels were all gotten up in 1902.

Q. Before that they didn't use that term?

A. Except in the case of Kairomel, which was 1900.

Q. That is one exception?

A. That is one.

Q. So the term corn syrup came into use then, as we understand practically in 1902?

Objected to as improper cross-examination.

Q. So far as your labels are concerned.

A. 1900.

Q. Well, aside from that one brand that you speak of, the Kairomel.

A. Yes sir.

Q. And what was the term in place of corn syrup on the labels that you printed for these companies prior to 1902?

Objected to as improper cross-examination. I confined my questions entirely to these labels and to a period beginning in April 1900, and didn't go back of that, and I object to any examination back of that as not proper cross-examination.

Objection sustained.

Q. Calling your attention to these other Exhibits in the order I have them here, Exhibit 135 has on it, hasn't it, "Compound, corn syrup 90%, cane syrup 10%."

A. Yes sir.

262 Q. Is that continued in that way right down to the present time or until July, 1907, I think you said?

A. Well, there may be some changes in the phraseology in the last order or two, I wouldn't be positive.

Q. Have you any distinct recollection of any change?

A. Nothing except dropping the word "Compound."

Q. Well, I don't care anything about that.

A. That is the only thing.

Q. Then in this next label, which is 134 it is "Corn Syrup 90%, Cane Syrup 10%." That is the same isn't it?

A. Yes sir.

Q. And Exhibit 133 has "90% Corn Syrup and 10% Cane Syrup."

A. Yes, but that is the Illinois Sugar Refining Company. To-day it would be "Refiners' Syrup" instead of "Cane Syrup."

Q. For that company?

A. For the Corn Products Refining Company.

Q. Well, have you got with you such a label?

A. I don't think I have.

Q. Exhibit 137 is for the Davenport Sugar Refinery, isn't it?

A. Yes sir.

Q. And that contains "Compound, 90% Corn Syrup and 10% Cane Syrup"?

A. Yes sir.

Q. The other one, it is partly torn off of 136, but you can see, can't you, it is "90% Corn Syrup" and starts out with "10% Cane"?

A. Yes sir.

Q. And Exhibit 132 is "Corn Syrup 90% and Cane Syrup 10%."

A. Yes sir.

Q. There is one here not marked that says "Anchor Corn Syrup." That was "90% Corn Syrup and 10% Refiners' Syrup."

A. Refiners' syrup.

Q. That is the only one that has "refiners' syrup" of all the labels that you have produced?

263 A. Yes sir, that is the latest phraseology.

Q. There is another bunch here that I omitted, the Karo brand, Exhibit 143, you may just look at that and see if that hasn't "85% Corn Syrup and 15% Cane Syrup."

A. Yes sir.

Q. And what is the fact as to 140?

A. That's "Corn Syrup with Cane Flavor."

Q. And Exhibit 141, what does that show?

A. "Corn Syrup with Cane Flavor."

Q. Does it give the percentage?

A. "90% Corn Syrup and 10% Refiners' Syrup."

Q. And this one that I show you, Exhibit 141, what is that?

A. "90% Corn Syrup and 10% Refiners' Syrup."

Q. And Exhibit 139?

A. "90% Corn and 10% refiners'."

Q. That's for the Corn Products Manufacturing Company, Davenport, Iowa, isn't it?

A. Yes sir.

Q. That is what these are all?

A. Yes sir.

Q. And Exhibit 138, is that the same?

A. "90% Corn Syrup, 10% Refiners' Syrup," yes sir.

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JOHN H. BRADSHAW, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Bradshaw, where do you live?

A. Evanston, Illinois.

Q. Are you in any business?

A. Yes sir.

Q. What?

A. In the syrup business.

Q. In what way in the syrup business?

A. I am doing what is known as the mixing business.

Q. How long have you been engaged in that business?

A. Well, I have been in the syrup business forty-three years. I have been blending more or less about thirty-eight years.

Q. Is your factory in Chicago?

A. Yes sir.

Q. Do you know an article called corn syrup?

A. Yes sir.

Q. How long have you known that article, corn syrup?

A. Well, for the last thirty-eight years.

Q. Have you been mixing and producing corn syrup—have you been producing corn syrup yourself?

A. I haven't been making it, not manufacturing it. I have been blending corn syrup with what is known as refiners' syrup.

Q. How long have you been doing that?

A. The last thirty-eight years.

Q. Continuously?

A. Yes sir.

Q. Have you been selling this article as corn syrup?

A. Yes sir.

Q. For how long?

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A. Ever since I have been in the business more or less.

Q. Is it known to the trade as corn syrup?

A. It is.

Q. To whom do you sell, to what class of trade?

A. Jobbing trade. Principally the wholesale grocers at the present time.

Q. Were you at one time an extensive dealer in this article?

A. Well, I was considered so.

Q. Was this article unmixed also called glucose?

A. Yes sir.

Q. Do you know whether the article unmixed usually bore a different name from the article as mixed? When I say mixed I mean prepared as a syrup for the table?

A. Well, unmixed it was originally called glucose.

Q. And mixed?

A. And mixed it was commercially known as corn syrup.

Q. During all that time?

A. More or less.

Q. What do you mean by more or less?

A. Well, the jobbers after the first sale of corn syrup by them generally established a private brand after which in placing their orders they would place it for a specified quantity under that private brand.

Q. Well, how did you first begin to sell it, that is, as to the containers, barrel/s, half-barrels or kegs, or anything like that?

A. Principally barrels and wood packages, kegs and kits, that class of packages.

Q. That continued in that way down to about what time you say before you began to put it up in cans?

A. Well, I think it continued in that way down to about 266 seven or eight years ago.

Q. Have you put any up during the last seven or eight years in cans?

A. Yes sir.

Q. In which the brands used were corn syrup?

A. Yes sir.

Q. Have you sold some of your produce in Wisconsin as well as in other states?

A. Yes sir.

Q. Do you sell down East also?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. Did you ever sell any in Madison, Wisconsin?

A. No sir, I don't think I have.

Q. You can't remember of any dealer that you have sold anything of that kind to, can you?

A. I can not, if it was before 1890. Previous to that time I sold a great deal to the retail trade, retail grocers.

Q. Now, you have been, you say, in this mixing business for something like thirty-eight years?

A. Yes sir.

Q. Alone?

A. No sir.

Q. In company with some one?

A. In partnership at one time.

Q. What was the partnership?

A. Bradshaw & Waite.

Q. At what place?

A. In Chicago.

Q. What was the sign out over your place of business?

A. Bradshaw & Waite.

Q. Anything else?

267 A. Syrup Refinery.

Q. Did you do any refining?

A. Well, probably not as it would be called.

Q. You did mixing?

A. We did more on the mixing order.

Q. Well, did you do any refining?

A. Well, you might call cleansing refining.

Q. You bought your articles and then mixed them afterwards?

A. Yes sir.

Q. What did you buy for mixing purposes?

A. We bought what is known as corn syrup unmixed.

Q. Did you buy it as corn syrup unmixed?

A. Recently, yes sir.

Q. How recently?

A. Oh, within the last year.

Q. What you bought from the Corn Products Company within the last year, this unmixed article, that was under the name of corn syrup for your purposes?

A. Yes sir.

Q. Always before that, for some thirty-eight years, you had bought that article as mixing glucose, hadn't you?

A. Yes sir.

Q. Always known in the market as mixing glucose?

A. Yes sir, with a certain degree Baume, a certain degree of density.

Q. And you had never heard of it being sold unmixed under any other name prior to within the last year, had you, Mr. Bradshaw?

A. No sir, I don't think I had.

Q. Now, when you got that article it was light in color I suppose?

A. Yes sir.

Q. You would say, wouldn't you, Mr. Bradshaw, that this number 1 Exhibit would be a fair representation of the article you were in the habit of buying?

268 A. It looks so, with the exception that the body is rather light. The color is all right.

Q. But it would be substantially that color?

A. Yes sir.

Q. And without any distinctive flavor, was it?

A. Without any flavor perceptible.

Q. You never attempted to sell it in that form for table use?

A. No sir.

Q. You couldn't dispose of it for that purpose in that form, could you?

A. No sir.

Q. In order to make it an article for table use you had to mix with it certain syrups?

A. Yes sir.

Q. And the kind you used were the different syrups; cane, sorghum?

A. Yes sir.

Q. Molasses?

A. Yes sir.

Q. And refiners' syrup?

A. Yes sir.

Q. The refiners' syrup you have only used of late years—rather recently?

A. No, I have used it—well, I have used more or less of it from the very start. It was not called at that time though refiners' syrup. It was called at that time cane syrup.

Q. Cane syrup?

A. Yes.

Q. And you produced the article which you sold to the retailer, or did you sell to the wholesaler?

A. We sold mostly—a great deal to the retail trade at that time, early in our business career.

269 Q. You sold the mixed article?

A. Yes sir.

Q. A certain percentage of the glucose with this syrup, whether one brand or another, as the mixed article?

A. Yes sir.

Q. Now, as I understood your testimony, you said something about the local dealer desiring some particular brand?

A. Yes sir.

Q. And you accommodated him, did you?

A. Yes sir.

Q. And blended the article you sold to suit his fancy?

A. Yes sir.

Q. Some times I suppose you branded it "Sorghum Syrup" didn't you, sometimes "Cane Syrup?" I am talking now previous to the last few years, before there were any food laws having anything to do with the branding of food products.

A. Well, it was more of a fancy name for it, such as Phoenix

Drips.

Q. Or Fancy Drips?

A. Fancy Drips or Brilliant.

Q. Honey Drips?

A. Honey Drips.

Q. Table Syrup?

A. Yes, Table Syrup.

Q. Rock Candy Drips?

A. Well, yes, I think there was Rock Candy Drips or Rock Candy

Syrup.

Q. Made up though very largely of this glucose?

A. Yes sir.

Q. That constituted the main body of the article?

A. Yes sir.

270 Q. And that continued, did it not, the label or designation of the articles you sold down to quite recently, those various terms?

A. Down to within probably three or four years.

Q. And when you said that you sold this corn syrup or had known of it for some thirty-eight years, you didn't mean that it was sold by you under that name, but that it was the same article that is now spoken of as corn syrup?

A. The same article.

Q. But not designated as that?

A. As corn syrup?

Q. Yes.

A. No sir.

Q. In a good many of the states it is now not lawful, as you understand, is it, or has it been for the last few years, to sell these mixed syrups under these fancy names that have been spoken of?

Objected to as incompetent.

Objection overruled.

Exception noted.

A. Under certain names, any name that would misrepresent the goods.

Q. Wouldn't be allowed?

A. Wouldn't be allowed.

Q. Now, hasn't that kind of legislation been the reason for your using the last few years on these mixtures this term corn syrup, when you didn't use it before?

A. I don't quite understand that.

Q. You said you had been selling the mixed article under the name of corn syrup only the last few years. Now you came to use that name corn syrup on these mixed articles, didn't you, Mr. Bradshaw, because under various statutes in the different states you were not allowed to use these other names that had been used before by the trade?

A. Well, not necessarily so. The demand calls for it under that brand.

271 Q. Isn't that mainly the reason why you made the change?

A. Well, we had to make that change on account of putting the formula upon the labels.

Q. Do you mean the percentage of the article?

A. The percentage of the articles.

Q. You have put them on in late years and in naming the percentage you used the term corn syrup, didn't you, instead of glucose?

A. Yes sir.

Q. Although the article represented by that percentage was the same article that you had been buying for thirty or forty years as glucose?

A. The same article.

Q. The percentages being there on the package or can by reason of the law requiring it?

A. Yes sir.

Q. And then the only question was whether you were permitted to use the term glucose or some other term like corn syrup?

A. Yes sir.

Q. And you used corn syrup where it was permitted, didn't you, because you thought it would be a better name to sell the article than to use the word glucose?

A. I considered it to be a true name.

Q. Well, isn't the other true too, Mr. Bradshaw—we will pass by what you considered it, a true name—you admit that in its natural state it isn't a syrup fit for table use, don't you?

A. Yes sir.

Q. So that when you come to put it on the can you thought, didn't you, as a dealer or mixer in selling to dealers, it would sell better if you would call it corn syrup instead of calling it glucose?

272 A. Yes sir. That was——

Q. That was one of the reasons?

A. That was one of the reasons.

Redirect examination:

Q. Now you stated, Mr. Bradshaw, that you sold for a great many years this article as corn syrup. Did you ever sell it as anything else than corn syrup until you began to sell it in cans?

Mr. OLIN: I object to that. It doesn't represent his testimony. He said he always sold it under corn syrup for the last two years.

Mr. FAIRCHILD: In cans.

Objection overruled.

A. Well, as I said before, we had sold it under these special brands.

Q. Well, were those brands on the barrels and kegs?

A. Well, on all packages.

Q. If a special brand was not called for, how would you sell it, how was it marked?

A. Well, it had to be branded something and I don't recall a case of that kind that we ever had.

Q. Did you have any brands of your own?

A. Yes sir.

Q. Did any of those contain the name corn syrup?

A. Of late years.

Q. How many years back?

A. Well, probably not over three years, since we commenced using the name corn syrup.

Q. Did you ever brand any of your barrels corn syrup?

A. Of late, yes sir.

Q. When did you first begin to brand them that way?

A. Well, I think it was in 1905, possibly 1903, in all of the syrup that we shipped into the state of Michigan.

273 Q. What is that?

A. In all syrup that we shipped into the state of Michigan. The law required there "Corn Syrup" or "Glucose," "Glucose Mix-
ture."

Q. Did you begin to use this name, corn syrup, in such shipments into Michigan as soon as the Michigan law was passed?

A. As soon as the Michigan law was passed, yes sir.

Q. Well, that Michigan law was passed in 1903, May 1903.

Mr. OLIN: Well, he made that exception. He says three years ago, but perhaps earlier for Michigan.

Q. You began as early as that then to ship it to Michigan under this brand of corn syrup?

A. Yes sir.

Q. Now, did you have the same brand and use it on other shipments?

A. Into other states?

Q. Yes.

A. Not as early as that.

Q. Earlier than three years ago?

A. About three years ago—commenced to use it more generally.

Q. You had used it before that, before three years?

A. Not outside of the state of Michigan. Possibly Wisconsin.

Q. Now just taking the article as prepared for the table after being mixed, and without any reference to special brands that any one wished to put upon it, what was that article called in the market?

A. Corn syrup.

Q. During all those years?

A. During all those years.

COURT: What years?

A. For the last thirty-eight years.

274 Recross-examination:

Q. Well, now I will ask a few more questions by reason of the examination of counsel. Haven't you already testified, Mr. Bradshaw, that you didn't commence selling this mixture under the brand or name of corn syrup until the Michigan law was passed? That's true isn't it?

A. I didn't brand it. It was branded as such.

Q. And you didn't brand any mixture that you sold "Corn Syrup" before that time during the thirty or forty years you have been doing business, did you?

A. I don't think we did.

Q. And people didn't buy it under that name of you, did they?

A. Yes sir.

Q. Well, they bought it—it wasn't branded that way?

A. No sir.

Q. Did you brand it one way and bill it out another?

A. We generally billed it out according to the brand, but it was ordered as so much corn syrup.

Q. So much corn syrup?

A. So many packages.

Q. Or so many packages of Fancy Drips?

A. So many packages of Corn Syrup in a great many instances.

Q. How do you account for the fact, Mr. Bradshaw, that the man ordering goods of you would order corn syrup when it wasn't labeled corn syrup and never had been and hadn't been sold as such by them?

A. They knew, being customers, that I knew their brand.

Q. Their brand?

A. What their brands of syrups were.

Q. The retailer?

A. Oh, no, the jobbers. The retailers, it was sold to them on their own factory brand.

275 Q. Whose factory brand?

A. Bradshaw & Waite's, at that time.

Q. And that wasn't "Corn Syrup"?

A. It was branded "Corn Syrup".

Q. No, it was branded these other names you have spoken of?

A. Yes sir.

Q. And sold under that name?

A. Yes sir, in a great many instances.

Q. Well, didn't it always prior to about three years ago, excepting into Michigan?

A. It might have went out under that brand, but it was sold as corn syrup.

Q. And was sold by the retail dealers to the consumer under that brand, wasn't it?

A. Yes.

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Bradshaw, have you with you any original letters ordering this article from you as corn syrup?

A. I have, yes sir.

Q. Will you let me see them, please.

(Produced by witness.)

Q. Did you endeavor in selecting these out to make a complete selection or just to take a few of them?

A. It was just from one month's file.

Q. These are in the month of January, 1897, I see, all except one of them, which is in December 1899.

A. 1897 I think you will find those.

Q. Yes, 1897. One is 1899.

A. One is 1899.

Q. Were these letters received by you ordering this article from different places.

A. Yes sir.

276 Q. Different customers of yours?

A. Yes sir. They were either ordering or asking quotations.

Q. I show you Exhibit 144 and ask you if that's one of the inquiries asking quotations of prices on corn syrup?

A. Yes sir, addressed to Bradshaw & Waite, under date of January 12, 1897.

Mr. OLIN: We object to any such testimony for the reason, first, as incompetent, irrelevant; for the further reason that under the testimony of the witness it would have no force or effect. He has already testified that this article, so far as the public was concerned, was put out not under the name of corn syrup, but some other name. It was not sold as such on the market.

Mr. FAIRCHILD: You don't correctly state his testimony.

Court: I don't understand this to be in conflict with his testimony.

Mr. OLIN: It might not be in conflict, but it wouldn't be of any force in reaching any conclusion in this case. The term wasn't used to designate this product, which they now say should be named corn syrup, in the market; it wasn't branded as that, it wasn't sold as that.

Court: The objection may stand overruled.

Q. I show you Exhibit 145 and ask you if that is the original order received by you from the firm that it purports to be sent from?

A. Yes sir.

Q. Dated January 15, 1897?

A. Yes sir.

Mr. OLIN: Same objection to its admission.

Objection overruled.

Mr. FAIRCHILD: I offer both of these in evidence.

Q. Now, here are twenty-three different letters. I will ask you to look at them and state whether they are the original letters received by you from the firm that purports to send them and at the time they purport to be dated, ordering this article as corn syrup?

Mr. OLIN: I object to that last. The letters show for themselves.

Mr. FAIRCHILD: All right. Ordering this article.

A. Yes sir.

Q. Now, the orders all emanate from one firm, but they request you to send, do they not, so much of this article to different places?

A. Yes sir.

Q. To different customers of that firm that writes the letter?

A. Yes sir.

Mr. OLIN: What firm is that?

Mr. FAIRCHILD: This is the firm of W. J. Gould & Company, wholesale grocers, Detroit, Michigan. Now we offer these in evidence. There are so many exhibits I hate to mark them unless you insist on it.

Mr. OLIN: Well, I think if they are competent at all, they had better be marked.

Mr. FAIRCHILD: Well, you may look at them and you will see that they are all orders for corn syrup. If you want them all to go into the record, you may have them.

Mr. OLIN: If you will leave them here so that I may look at them, I have no objection to your offering them in that way.

Q. Now, I will ask you if each one of these letters orders from you corn syrup by that name by the barrel?

A. Yes sir, all call for barrels, all barrels with the exception of a few half-barrels.

Q. Here is another from another firm, E. Bierhaus & Sons, Vincennes, Indiana. I will ask you if that is the original order to you for this article during the month of January 1897.

A. It was in inquiry for a quotation, not an order.

278 Q. For what?

A. Corn syrup.

Q. Quotation for corn syrup per gallon?

A. Yes sir.

Mr. FAIRCHILD: Now that letter is Exhibit 146. I will offer that in evidence.

Q. I call your attention to Exhibit 147 and ask you if this is the original order received by you from John J. Kerby of Detroit ordering this same article?

A. Yes sir, it is. It is an inquiry from John J. Kerby to quote a price.

Mr. FAIRCHILD: "Will you consider ten cents for corn syrup, freight prepaid, or less freight to Detroit, Messrs. Grones & Brehm are in the market for a car, and Edward Henkel Co., and Moran, Fitzimmons Co. would probably buy a car at this figure."

Q. I call your attention to Exhibit 148 and ask you if that is the original order sent to you on the date that it purports to be dated January 12, 1897, from Danville, Virginia, for selling this article?

A. Yes sir.

Q. Now, I will ask you if that is the form in which your orders for corn syrup usually came when the party had a special brand which he wished to put on?

A. Yes sir, similar to that.

Mr. FAIRCHILD: I offer this in evidence. I will read it into the record in order that we may get the particular matter in the record before the court:

"DANVILLE, VA., January 12, 1897.

Messrs. Hradshaw & Waite:

Ship R. W. Lawson & Co. South Boston, Va. 40 barrels No. 19 corn syrup at 14½ delivered. Ship at once and brand it R. W. Lawson & Co. Honey Drips, South Boston, Va. Send nice barrels and ship quick. South Boston parties always want quick shipment on everything they buy.

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L. T. PINGOR & CO."

Q. Now, this purports to be a letter from a broker, Charles H. Hart of Denver, Col. January 7, 1897. I will ask you if that is the original letter received by you?

A. Yes sir.

Q. From the party it purports to be at that date?

A. Yes sir.

Q. I will show you Exhibits 149, 150, 151 and 152 and ask you whether those are the original letters received by you from the party that purports to have written them and of that date?

A. Yes sir.

Mr. FAIRCHILD: I will offer those in evidence.
(Letter marked Exhibit 153 shown to the witness.)

A. I took it from our file of 1897.

Q. May it not have crept in there by mistake?

A. I don't think so. It would take it back too far.

Q. Was this letter, Exhibit 153, received by you in the course of mail from the party that purports to have written it and of that date?

A. As to the date—

Q. You think it was 1897. That would be of November 1897 instead of 1899?

A. Well, that letter, I don't know about it, it is addressed to me instead of Bradshaw & Waite. The firm at that time was Bradshaw & Waite.

Q. Were you dealing with such a firm as this?

A. Yes sir.

Q. Well, you received that letter there at your office?

A. Yes. We received that letter at our office.

Q. You think you received it in 1897 instead of 1899?

A. I think it should have been 1897.

280 Q. You are not certain about that?

A. I am not certain about it.

Mr. FAIRCHILD: I offer this in evidence.

Mr. OLIN: We object to it as irrelevant.

Q. I will ask you whether at that time you were receiving orders such as have been here presented from month to month, in about the same proportion as appears from the month of January, 1897?

A. I should say we were, yes sir.

Recross-examination:

Q. I see on one of these letters that have been offered in evidence, Exhibit 152, and I call attention to it as illustrating what I suppose was the practice, under date of January 28, 1897, from Indianapolis, Indiana, J. M. Paver & Co., it says: "P. S. Style of stencil inclosed." That was the style that they wished to have it marked or branded?

A. I presume so, yes sir.

Q. And if you sold, it went out under that brand?

A. Well, from that letter I should say yes.

Q. Well, that would be your practice of branding it if they gave a special direction?

A. Yes sir.

Q. Now, all these orders or letters pertain to an article that has been mixed?

A. Yes sir.

Q. Not the glucose unmixed?

A. No sir.

Q. I see that one here offers nine and a half cents. That is a gallon is it?

A. Yes sir.

Q. Another offers eleven and a half cents. That would be a gallon wouldn't it?

A. Yes sir.

281 Q. Another nine cents in one place and ten cents in another.

A. That is per gallon.

Q. After it is mixed?

A. Yes sir.

Q. Do you know what the mixture sells for today, about?

A. Yes sir.

Q. What is it?

A. About twenty-three and a half cents, barrel basis, f. o. b. Chicago.

Exhibits 144 to 153 inclusive and the twenty-two letter orders for corn syrup referred to in the testimony of this witness and offered in evidence, as appear in this bill but not separately numbered or marked as exhibits, are hereto attached and made a part hereof.

282 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Doctor, with reference to the adoption of these standards at Jamestown, or rather prior to the adoption of them there, do you know what the fact is as to the general circulation of Circular No. 19 among such men as gathered there?

A. Circular No. 19 was well known among all state food control officials and I believe also among manufacturers.

Q. And that of course would be true prior to the action of the meeting in 1908?

A. Certainly.

Q. There had still been further discussion, had there not?

A. Yes.

Q. On this very subject, as to whether or not glucose and corn syrup were synonymous terms?

A. Yes sir.

Q. Doctor, I will ask you to look at these two exhibits that were sold and state what they show as to whether either of them indicates that they are flavored with refiners' syrup. The one you have there is what exhibit?

A. Exhibit C, it is marked "Karo, trademark, Corn Syrup with Cane Flavor," in the prominent part of the label.

Q. Then the percentages are given, are they not, in a smaller place?

A. In much smaller type "Corn Syrup 85% Refiners' Syrup 15%" are given on the back of the package.

Q. The other, Exhibit B, is marked in what way in that respect, as to whether it's cane or refiners' syrup?

A. It is marked in the main label "Karo Corn Syrup, Trade Mark," and on one side of the package is the statement "90% Corn Syrup, 10% Cane Syrup."

Q. Do you find any "Refiners' Syrup" indicated on it any where?

283 A. No sir.

Q. Did the contents of either of those exhibits contain any cane syrup?

A. I do not think so.

Q. What did they contain and what was the flavoring element?

A. I think they contained a product known as refiners' syrup, or refiners' molasses, or refiners' sugar-house molasses.

Q. I hand you Exhibit marked 160 and you may state what that is?

A. Exhibit 160 is a mixture containing 85 per cent of glucose of 42 Baume strength and 15 per cent of cane syrup.

Q. Has cane a distinctive flavor?

A. It has.

Q. Is it like the flavor of the refiners' syrup?

A. It is not.

Q. And which is the superior article, the cane or the refiners' syrup?

A. Cane syrup is a superior article.

Mr. OLIN: We offer that exhibit in evidence, Exhibit 160.

Q. One question I think I didn't ask you which I wish you would answer briefly, if you can, and that is, what were the reasons, if you know, why the committee on standards dropped the term "corn syrup" as a synonym for glucose?

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial, it is mere hearsay at the very best, and they are standards by no one, they are simply an expression of opinion, if anything at all.

Mr. OLIN: Of course we take the position that they are a part of the law of this state.

Court: Conceding that is true, are the reasons for the change material?

284 Mr. OLIN: Well, I think the court ought to be informed by a witness who is competent to give the reason for dropping the particular phraseology and adopting another.

Objection sustained.

Q. There has a term been used here, doctor, in the testimony two or three times of "invert sugar." Can you tell us what that is, just describe it briefly in plain language.

A. Invert sugar is a mixture of equal parts of the sugars dextrose and lewulose. It is ordinarily produced by the action of acids or ferments upon cane sugar. It is contained in syrup and in acid fruits, primarily as a result of the change of the cane sugar.

Q. By acids?

A. Yes, in what is known as inversion of cane sugar.

Q. Is it therefore, a constituent of grape?

A. Yes sir, it is contained in grapes.

Q. And is that the sugar we see on the outside of grapes when they are made into raisins?

A. Only one of them.

Q. I wish you would explain that.

A. The dextrose is the sugar that crystal-izes out from raisins in the drying of grapes. It is less soluble than the levulose and on that account the synonym "grape sugar" for dextrose has arisen.

Q. Strictly speaking is that correct?

A. No, it is not, because dextrose is only one of the sugars contained in grapes.

Q. The other being the levulose?

A. Levulose.

Q. Now, I wish you would define, if you will, what is understood by sucrose?

A. Sucrose is a sugar of a certain definite formula and composition which is contained in the juice of all sugar and syrup producing plants.

285 Q. Such as what?

A. Such as the cane, the maple, the sorghum, the beet, the maize, etc.

Q. You say maize, you mean stalk?

A. Of corn.

Q. The stalk of the corn?

A. Well, the sap of the maize plant. In its ordinary commercial form it appears in its purest shape as rock candy; in somewhat less purer forms as granulated sugar and as loaf sugar. Very frequently the term cane sugar is applied to it somewhat loosely, independent of the source, independent of whether it comes from the beet or comes from the sugar cane or comes from a purified sorghum, although the latter is at present not a commercial source of pure sugar.

Q. Or from the maple tree?

A. Or from the maple tree, if it were sufficiently purified, the sugar in there, the sucrose, is frequently known as cane sugar.

Q. And would the sugar in all those cases be the same, no matter what the source was?

A. The sucrose would be the same chemically and organoleptically.

Q. Now, what can you say as to what are ordinarily understood by consumers as syrups, as to their source?

A. My opinion is that the ordinary consumer under the name of syrup—

Mr. FAIRCHILD: Is this an expert question.

Mr. OLIN: Yes.

A. —considers the concentrated juice from plants like the cane, like the maple, like the sorghum, or perhaps the maize.

Q. Each of which owes its sweetness to what?

A. To sucrose.

Q. Or cane sugar?

286 A. Or cane sugar.

Q. In the manufacture of these syrups from those sources is there produced an invert sugar?

A. In the boiling down of the sap it is impossible to prevent the formation of a greater or less amount of invert sugar.

Q. Now, the difference between these syrups depends upon what?

A. The difference between these syrups depends mainly upon the characteristic flavor, which is dependent on the source and characteristic of the source.

Q. Now, does glucose ever contain any cane sugar or sucrose?

A. No sir.

Q. Does it contain any levulose?

A. No sir.

Q. Does levulose make up a part of invert sugar?

A. It makes up one-half of invert sugar.

Q. Which is always present in true syrups?

A. Yes sir.

Q. Do true syrups contain any dextrin?

A. No sir. They may contain small quantities of gum-like substances, physically something similar to dextrin, but the percentage is always very small and they are not identical with starch dextrin.

Q. Have you got with you a copy of the definitions which you read the other day, in the different dictionaries?

A. Yes sir.

Q. One of the definitions given there of glucose, in the Century Dictionary was: "Second: In commerce the sugar syrup obtained by the conversion of starch into sugar by sulphuric acid, etc."

A. Yes sir.

Q. What do you say as to the accuracy as to the use of that term there "sugar syrup"?

A. I think the definition is faulty, or the name sugar syrup is very loosely applied, because under the head of sugar syrup the Century Dictionary defines this product as follows:

Q. The same dictionary?

A. The same dictionary, Century Dictionary, defines sugar syrup as follows: "First. The raw juice or sap of sugar producing plants, roots, or trees. Second. In the manufacture and refining of sugar, a more or less concentrated solution of sugar.

Q. Is that definition of sugar syrup consistent with the statement above in defining glucose, naming it in commerce "sugar syrup" etc.

A. It is not consistent.

Q. Is the last definition of sugar syrup a correct one according to your notion, substantially?

A. I think sugar syrup might also well be applied to the solution of ordinary sugar.

Q. That would simply be adding to it?

A. Yes. And the name is so used.

Q. Your attention has been drawn to the hearing before Secretary of Agriculture Wilson and the other two secretaries, that resulted in the opinion that has been introduced signed by them, dated Febru-

ary 13, 1908. I will ask you to state whether on that hearing or prior to the decision the committee on food standards that had made its report originally in June 1906 of these standards was in any way notified of the hearing or consulted?

A. It was not.

Q. Or the opinions of any of its members asked?

A. No sir.

Q. Do you know whether any opportunity was given to the food chemists or specialists generally throughout the country to be heard on that hearing?

A. I understand that the Corn Products Company were the only ones that were given an opportunity for a hearing either directly before the three secretaries or before the secretary alone, I 288 don't know which.

Q. I wish you would state, doctor, the character of the sugar that is found in corn stalks or found in the juices from the same?

A. The main sugar contained in the stalks—greenstalks or only partly ripened stalks, of either sweet corn or the ordinary field corn, is sucrose. There is always present with it a small amount of invert sugar. The composition of the sap of the corn stalk is very similar to that of the sorghum.

Q. And do you know from your reading and investigation as to the quantity of sweetness or sugar found in the maize plant or stalk as compared with the cane?

A. I do not know exactly as to that. I do know the relative amounts as compared with the sorghum.

Q. Well, as to the sorghum?

A. Under favorable conditions of growth the amount of sugar contained in the sap of the maize plant or corn is very nearly the same as in the sorghum.

Q. Have you since you were on the stand, doctor, following out some suggestion I think contained in the questions of Mr. Fairchild, looked up some of these reports on this subject of the making of sugar or syrup from the stalks of corn?

A. Yes sir.

Q. Have you got the books here?

A. Yes sir.

Q. Can you state the substance of what you have ascertained without turning to the books?

Mr. FAIRCHILD: I object to that as incompetent and immaterial. How does that affect the question of whether the name "corn syrup" can be applied to glucose when it is put up as a table syrup mixed with refiners' or cane syrup?

COURT: The objection is not based upon the fact that the 289 books themselves are not produced?

Mr. FAIRCHILD: Well, I certainly would want his authority.

Mr. OLIN: Well, get the books and turn to the pages, if you can do that, doctor.

Mr. FAIRCHILD: Does your honor hold that it is material?

COURT: Yes.

Exception by defendant.

Q. Now, you may take up the first one there that you have and give the reference, so that the counsel can look it up if he cares to.

A. In the report of the United States secretary of agriculture, or commissioner of agriculture, as he was called at that time, for 1877, there appears a report from pages 228 to 264 inclusive on the subject of maize and sorghum as sugar plants. In this report are included a considerable number of analyses both of the sap of maize and sorghum and of syrup produced from the sap, and the term corn syrup is also used in that report.

Q. Is that one of the reports that shows the test as to the number of pounds per acre, or is it some subsequent one?

A. I believe a subsequent one gives the number of pounds of sugar that can be produced per acre. In the report of the commissioner of agriculture of the United States for 1879, under the report of the chemists, on page 57, and following, there are included analyses of corn and sorghum sap from the plant, the percentage of sugar in the juice, etc. In the report of the department of agriculture for 1881 and 1882—

Mr. FAIRCHILD: The same objection runs to this whole subject.

COURT: The record may show that all this testimony with reference to the reports may be received as if the same objection had been made as made to the first and overruled.

A. 503 and 504 and the following, the analyses of the sap from maize and from sorghum, and a statement as to the amount
290 of sugar still contained in the sap of the maize after the corn had fully ripened. I might say with regard to the previous reports that they give analyses of sap at various stages of the growth, and they find in the case of sweet corn their most successful yield right after the picking of the corn for canning purposes.

Q. Is that in connection with the discussion that the stalks might be used for this purpose and the corn for canning purposes?

A. Yes sir, but the stalk after the grain is thoroughly ripened still contains sugar.

Q. Is it in connection with that that one of the reports gives the number of pounds?

A. Yes sir, 900 pounds of sugar available from an acre. Well, the statement is as follows: "Two years in succession sugar has been produced from the stalks after the corn had ripened at the rate of fully 900 pounds per acre." That is on page 504 of this last report, 1881 and 1882 together, I suppose it is 1882. And I have here a volume of the patent office report for the years 1843 and 1844.

Q. That department covered agriculture at that time?

A. As I understand it, yes. It contains numerous reference to the production of corn syrup, corn stalk syrup, and corn stalk sugar, as produced during those years in various parts of the United States, and successfully produced.

Q. You might refer to the pages there, so that the counsel on the other side can investigate?

A. I have a few of them, pages 99, 147, 138, 302, and quite a number more are included in this volume.

Q. Have you been able to secure the report of the committee that was appointed to investigate this subject of glucose and its manufacture, appointed by the National—what was it?

A. Academy of Sciences.

291 Q. By the Academy of Sciences in 1882, was it, or 1884?

A. They made their report early in 1884.

Q. Have you got any book that contains that report?

A. Yes sir.

Q. Will you let me see it? (Handed counsel.) This is entitled "Report of the National Academy of Sciences for the year 1883," on the outside.

A. Yes sir.

Q. Labeled "Library of the University of Wisconsin."

A. Yes sir.

Q. The report on this subject begins at page 65, doesn't it, in this book?

A. Yes sir.

Q. And how far does it go?

A. Up to and including page 143.

Q. In fact it includes everything after that excepting a page of index?

A. Yes.

Q. Are you acquainted with Leach on Food Inspection and Analysis?

A. Yes sir.

Q. What is that book?

A. It is the latest and perhaps the most comprehensive work on the subject published in this country.

Q. Have you the book here?

A. Yes sir.

Q. When was it published?

A. 1905.

Q. Do you know whether this book deals with the subject of glucose?

A. Yes sir. I suppose when you say glucose you mean commercial glucose?

Q. Yes, commercial glucose.

A. Yes sir.

292 Q. In what way does it deal with that subject?

A. The uses and the methods of analysis, composition, etc.

Q. Does it recognize corn syrup?

A. The only mention of the name corn syrup in Leach is found in what is evidently taken from the report on glucose of the committee of the National Academy of Sciences enumerating the names by which that product has been sold in this country. In the body of the book the term is never used.

Q. Do you mean corn syrup?

A. The term corn syrup I mean.

Q. Do you know how he defines the term commercial glucose?

A. Yes sir. He defines commercial glucose "as a heavy, mildly sweet, colorless, semi-fluid substance, having a specific gravity of forty to forty-five degrees Baumé. It is usually used as an adulterant of maple syrup, molasses, honey drip syrup, jellies, jams, and as an ingredient of confectionery." I did not read that completely, perhaps I should have done so. He gives that list to which I refer; "Commercial glucose, otherwise known as mixing glucose, crystal syrup, and starch or corn syrup, is a heavy, mildly sweet, etc." That is the complete definition. And he also gives "United States standard glucose, mixing glucose, or confectioners' glucose," followed by the definitions contained in circular number 19.

Q. Your definition in circular number 19 is the same as this book, as I understand?

A. Practically. I perhaps had better read it. "United States standard glucose, mixing glucose, or confectioners' glucose, is a colorless glucose varying in density between forty-one degrees and forty-five degrees Baume, at a temperature of 100 degrees Fahrenheit. It conforms in density within these limits to the degree Baume it is claimed to show, and for a density of forty-one degrees Baume contains not more than twenty-one per cent of water, and for a
293 density of forty-five degrees contains not more than fourteen per cent. It contains on a basis of forty-one degrees Baume not more than one per cent of ash, consisting chiefly of chlorids and sulphate of lime and soda." It is practically identical, although the wording is slightly different.

Q. What is the position of this man who is the author of this work, Mr. Leach?

A. Professor Albert E. Leach was for many years analyst of the Massachusetts board of health, and he is now in charge of a government food laboratory at Denver under the food and drugs inspection act.

Mr. FAIRCHILD: He is recognized as quite a high authority?

A. He is, yes sir.

Q. Various advertisements have been introduced in evidence here, doctor, just to call your attention to a matter that I would like to have you explain, one of them states here on page 55 as follows:

Mr. FAIRCHILD: I object to that unless you propose to offer it in evidence.

Objection sustained.

Mr. OLIN: I will offer it in evidence, the advertisement marked Exhibit 161.

Recess until 2 P. M., at which time the direct examination of Dr. Fischer was continued by Mr. Olin.

Q. Doctor, I started to ask some question before intermission and objection was made to it, the document which I desire to direct your attention to. What of the elements of the grain corn go into the starch from which the glucose is made. We will leave out the advertisements, they will speak for themselves, you simply go on and state your answer to that question.

294 A. You mean the word elements there of course as not applying to the elements of chemistry, but to the various parts?

A. Yes, to the various parts.

Q. The parts of the grain corn or kernels of corn are, moisture, which is always present, if dried under ordinary atmospheric conditions.

Q. Can you state about the per cent of moisture?

A. I have here an average of quite a number of analyses which gives the moisture as 13.35 per cent. Fiber, which is cel-ulose, corresponding to wood fiber in chemical composition, 1.67.

Q. Now, right there, so that we can clean it up as we proceed, is there any nutritive element in that as you have described it?

A. No sir.

Q. There is such a thing as bran that comes from the manufacture of corn?

A. Bran is made from corn, yes, is a byproduct in the manufacture of glucose.

Q. Does that have a food value?

A. Yes, that isn't pure fiber, but it contains some protein substances. They average as high as fourteen per cent of protein.

Q. Not fourteen per cent of the entire product?

A. No. I don't know what the amount is that they get out of corn.

Q. Now, the next element is what?

A. Gluten, that is, chemically speaking, not commercially speaking; gluten, 10.17 per cent. Now, I understand there is also manufactured what they call gluten, which is worked up into gluten feed and which contains forty per cent of proteid substances. This gluten is pure proteid, the one I refer to, 10.17.

Q. And that constitutes what part of the corn as a food product?

A. 10.17. This gluten that I mentioned here includes the proteids in what is ordinarily sold as gluten feed, and the proteids that are in the bran.

295 Q. Well, it is called a nitrogenous substance?

A. Yes sir.

Q. As distinguished from a starch?

A. Yes, proteid, that means nitrogenous.

Q. And when taken into the system builds up what part of it?

A. The gluten is the muscle building part of the food.

Q. And does starch build up the muscles?

A. No sir, it can not. Starch can only produce fat and affords heat and energy to the system. Gluten feed is used as cattle food. That contains forty per cent of actual gluten.

Q. Now, the oil is what per cent?

A. Fifty-eight.

Q. That comes from what part of the kernel of the corn?

A. From the embryo.

Q. Or the germ?

A. Yes sir.

Q. Is that the little yellow part that we find in the center?

A. Yes sir.

Q. Does that pass into the starch?

A. No sir. That is removed in the manufacture of glucose.

Q. What is done with that if you know.

A. That is made into a corn oil which is used largely as an adulterant of oils, and into oil cake, which is used as a cattle food.

Q. That don't go into the starch at all?

A. No sir.

Q. The next element?

A. In a chemical analysis generally expressed as ash, which means the inorganic constituents of the corn, of which 1.40 per cent are present.

Q. Now, what function does that serve as a food?

296 A. A certain amount of ash constituents are absolutely essential to nutrition, and the ash of all grains is high in phosphates and are especially important. In part they are the bone building constituents of a food, although they serve other important purposes.

Q. Now, there is left, generally speaking, what other element?

A. Starch.

Q. Making up what per cent?

A. 68.63.

Q. Now, is there in either starch or the product you get from starch called glucose any of these other elements: fiber, gluten, oil, ash?

A. As I understand it, they attempt to remove those as perfectly as they can.

Q. And the more perfectly they remove them the better form of starch is secured?

A. Yes, the starch that they produce runs as a rule over 99 per cent of pure starch excluding the moisture.

Q. So what would you say then as to this article glucose containing all of the essence of the corn as a grain?

A. I should say that it is false and misleading.

Q. When you eat, for instance, corn bread or corn meal, you get all of these other elements, do you not, that you have spoken of?

A. Yes sir.

Q. Now, bearing on that question, doctor, what this starch contains I direct your attention to a statement made in this report of the National Academy of Sciences, which was signed by I think five gentlemen: George F. Barker, chairman, William H. Brewer, William Gibbs, Charles F. Chandler and Ira Remsen, Committee, on page 76 they treat of that subject of what the starch contains.

Court: Is that the report of 1883?

Mr. OLIN: The report of 1884.

297 Q. You may just read that paragraph?

A. It refers to that incidentally in discussing the question of substitution of Indian corn for barley in the brewing of ale or beer.

Mr. FAIRCHILD: I object to this line of testimony as entirely im-

material. I assume that brother Olin is striving to show as untrue some representations made in the advertisements.

Mr. OLIN: No, I am now trying to show that that committee has substantially reached the same conclusion as to the elements that make up this substance—corn and the elements that go into the starch.

Mr. FAIRCHILD: Well, the same conclusion that they arrived — is the one just testified to by Dr. Fischer?

Mr. OLIN: Yes.

Mr. FAIRCHILD: Well, I should have objected to that as well. What effect can it possibly have upon the issue here? How can these defendants be prejudiced by any puffing advertisements, by any of the advertisements that were put out as to this article. The question is whether this corn syrup is or is not a proper name to be applied to that article—as it is—as it is permitted by the statutes to be sold and as it is sold and as it was sold in this case.

COURT: What is the purpose of the offer?

Mr. OLIN: Why, the purpose of it — to show as one of the reasons why the legislature did a wise thing in requiring this article to be named what it is, glucose, that this mixture instead of permitting them to use the name corn in advertising as they do, as coming from the kernel corn; if it did come from the kernel corn and is entitled to that name, they could advertise it that way. It seems to me it is most material as showing the taking by this company or
298 seeking to of a name to itself under which they admit they couldn't sell, that is, the article that comes from the corn, the only article that comes from the corn, namely, the glucose, they couldn't sell as a syrup at all, and attaching to it this other name and then selling it.

COURT: He may answer.

Exception by defendant.

A. This statement, in the National Academy report is as follows: speaking of the uses to which glucose is put as a substitute for barley malt in the brewing of ale or beer: "This is really a substitution of Indian corn for barley, but it constitutes a very imperfect substitute, as the corn by the treatment employed in extracting its starch for conversion into glucose is completely deprived of all the nitrogenous bodies and mineral salts which it originally contained; hence the glucose alone, which is simply transformed starch is substituted for the entire barley grain with its great variety of valuable constituents. This is not true, however, of the maltose produced from the corn."

Q. This is as far as I care to go, that answers the question. You answered a question or two with reference to a work that you said was a standard work, by Mr. Leach, just before the intermission, doctor.

A. Yes sir.

Q. Did I understand you to say that this work was issued in 1905?

A. According to the title page and according to my recollection it was.

Q. Before the standards or rather while the standards as they then existed in circulars number- 10, 13 and 17 were in existence.

A. Standard 17 was in existence.

Q. Each recognize- corn syrup as synonymous with glucose?

A. Yes sir.

299 Q. Now, does this work recognize anywhere corn syrup as synonymous with glucose?

A. Not in their definition of standard glucose.

Q. Have you got the book there? (Produced by witness.) Does the work mention "corn syrup" in its body at all?

A. The only place it mentions corn syrup is in the paragraph that I read. Although it uses the word glucose again and again in treating of sugar and saccharine products, it never refers to it under any other name than as "glucose" or "commercial glucose"

Q. What do you say the fact is as to all of these works that deal with this subject in naming the different names under which it may be sold commercially.

A. Why, if I understand your question right, I should say that any treatise on food and food adulterations to be thorough would include all the names by which food products are sold at the time the book was being printed, whether the names under which they were sold are honest or not.

Q. As giving the history and actual facts in the case?

A. Actual facts as they existed at the time the book was written.

Q. Irrespective of the opinion of the particular author?

Mr. FAIRCHILD: That is an argument.

Q. Well, isn't that a fact?

Mr. FAIRCHILD: That is an argument by the witness.
Objection sustained.

Q. Are you familiar with the work by Leffmann & Beam?

A. Yes sir.

Q. Have you got that with you?

A. I have.

Q. That is a book on what?

A. A book entitled "Food Analysis."

Q. And who are Leffmann & Beam?

300 A. I do not remember their exact positions now. Henry Leffmann, A. M., M. D., Ph. D., and Beam, A. M., M. D., F. I. C.; those are the titles by which they go. I believe they both reside in Philadelphia.

Q. Do you know the standing of the book?

A. Yes sir. It was regarded up to the printing of Leach's Food Analysis as the standard authority on food analysis in this country.

Q. Do you know how they designate this article that we have been investigating here, glucose?

A. In speaking of it in the body of their work they always refer to it as glucose, although in the same way or similar way as Leach handles the subject, I believe they state somewhere that glucose is often termed corn syrup, that is the quotation.

Q. That is a quotation?

A. Yes sir.

Q. On what page?

A. On page 125. It says: "In trade the term glucose is restricted to the syrup. The solid is called grape-sugar."

Q. That is, using syrap in the sense of liquid there?

Objected to.

Objection overruled.

Exception by defendant.

Q. Are you familiar with the work by Blythe?

A. Yes sir.

Q. What is that?

A. Blythe is, I believe, the recognized authority on food analysis in England. It is a book entitled "Foods, Their Composition and Analysis".

Q. How recent a book is that?

A. 1903.

Q. Do you know how that book deals with this subject of glucose?

A. Yes sir.

301 Q. You may state—whether it recognizes the name corn syrup as a synonym for glucose?

A. Not in the body of the work. There are several references which I shall try to find and read. Here is one. There are not very many references to glucose. "On treating golden syrup, molasses, the above named syrups are byproducts of the sugar industry, and all consist essentially of sucrose and sugar, the common adulterant being glucose syrup. Considerable attention has been devoted of late years to this form of adulteration, on account mainly of the possibility of arsenical contamination by arsenical glucose."

Mr. FAIRCHILD: What page is that, doctor?

A. Page 127.

Q. Are you familiar with Allen's Commercial Organic Analysis?

A. Yes sir.

Q. What is that work?

A. It is the most extensive work on the subject of commercial organic analysis in the English language. It is published in England and there is an American edition by Henry Leffman.

Q. Do you know how many volumes?

A. Why, it is issued in four parts and about eight or nine volumes and perhaps more.

Q. Do you know what the date of the edition you were referring to in this country is, about?

A. Volume I which I have in my hand which treats of sugars and their substitutes and saccharine products, bears the date 1905.

Q. How does this treat this article we have been speaking of here?

A. I only find it in once, the mention of the name corn syrup, where they apparently quote the report of the National Academy of Sciences. This statement is found in it: "In America the term glucose is restricted to the syrupy preparations, the solid product

302 being distinguished as grape-sugar. The following grades are recognized: Liquid varieties; glucose, mixing glucose, mixing syrup, corn syrap, jelly glucose, and confectioners' glucose." If I am not mistaken, that is the exact order in which the National

Academy report gives these. That is page 359. And then it gives the solid varieties, which I do not suppose you want. Another place on page 312 is this reference: "Starch glucose is very extensively employed in the manufacture of confectionery, but its use seems wholly unobjectionable unless its nature be misrepresented".

Q. Do you know, doctor, whether patents have been taken out on processes or machinery for the manufacture of corn syrup from the juice of the corn?

A. I understand that patents have been taken out.

Mr. FAIRCHILD: Is that the same reference you made the other day, as to seeing something in the newspapers?

A. No sir.

Mr. FAIRCHILD: You mean recently taken out?

A. I don't know the exact dates. I wouldn't even want to say how recent.

Q. One other work I wanted to call your attention to, and that is the British Pharmacopœia. Are you acquainted with that?

A. Yes sir.

Q. And do you know how that treats this substance, glucose, or mixing glucose that we are dealing with?

A. It is in the British Pharmacopœia called "liquid glucose" and a preparation is officially called "syrup of glucose", which is made by mixing one part of liquor glucose with two ounces of syrup, which syrup in the English Pharmacopœia is defined or consists essentially of a saturated solution of cane sugar in water, as it is universally so recognized in pharmacy, simple syrup.

Q. And how recently are you speaking now of the British Pharmacopœia?

303 A. This is the pharmacopœia of 1898, I believe the last edition.

Q. Does that recognize anywhere the term corn syrup as synonymous with glucose?

A. No sir.

Q. Do you find a statement in this same report of the Academy of Sciences on page 77 on the question as to whether it is proper to use dextrin in a syrup?

A. Yes sir, I remember such a reference.

Q. I wish you would state the conclusion as stated there by the committee on that subject.

A. Speaking of the change that takes place by the action of acid upon starch, with the intermediate formation of dextrin it says: "The extent of the transformation is dependent upon the strength of the acid, the temperature and the time during which the heating is continued. The intermediate products are chiefly maltose and dextrin, which may be present in greater or smaller quantities according to the way the process is carried out. If the product is to be used in the form of syrup, then the presence of dextrin is objectionable, as it has no sweetening power, though it does not produce injurious effects upon the system." And further: "If it is to be used in the manufacture of beer, it should be borne in mind that dextrin does not undergo fermentation."

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, is refiners' syrup cane syrup?

A. No sir.

Q. What kind of syrup is it?

A. I do not think it is a true syrup.

Q. Well, your standards say so, don't they?

A. The name refiners' syrup has long been used to designate a sugary product that comes from a sugar refinery, and that name was suggested to the standards committee as a proper name, in a similar way doubtless as corn syrup was suggested to them as a proper name for glucose. I do not think that refiners' syrup is a proper name. I think it ought to be called refiners' molasses or sugar-house molasses, because it is a molasses rather than a syrup.

Q. But it come from cane, doesn't it?

A. The sugar that is in it comes from cane. Other things that are in it do not come from the cane? And it hasn't a cane flavor, it has not the flavor of cane syrup.

Q. What is there in it that doesn't come from cane?

A. What there is I don't know, I don't think anybody knows, but there are certain flavoring substances that are developed; probably due to the frequent filtration through bone-black, probably changing their flavoring constituents, which give to that product a characteristic flavor of its own, and also adds to the product a large amount of inorganic matter, the ash in refiners' syrup being much higher than it is in molasses, going up as high as eight and more per cent.

Q. But all of the essence, so far as sweetness is concerned, in the refiners' syrup comes from cane?

A. The sugar, cane sugar that is in the refiners' syrup was present in the cane sap from which it was made.

Q. You don't get the sugar that you get in the refiners' syrup from any other source than the cane, do you?

A. No sir.

Q. Well, isn't it regarded as a cane syrup of a cheaper grade than what we call ordinarily cane syrup?

A. I am afraid the name has misled people to suppose that, but it isn't that. It partakes of the nature of molasses.

Q. Well, you say it is recognized in that way?

A. Why, it has been commercially so sold.

Q. Isn't refiners' syrup commercially recognized as a cane syrup of an inferior grade to what we ordinarily term cane syrup?

A. By some people. By others not. The planters do not call it cane syrup, but call it refiners' molasses or sugar-house molasses. That is the dictionary definition of this too.

Q. I mean those in commercial trade.

A. I suppose commercially they have created names that would make the article more salable.

Q. Under what name would that syrup ordinarily be recognized or known by the public generally?

A. It is sold under the name treacle about as much as any other name. Treacle is a synonym for this refiners' molasses.

Q. But a person going to the store to get that syrup wouldn't think of calling for treacle?

A. No. He wouldn't call for refiners' syrup either. He would call for syrup and get whatever was dished out to him.

Q. What authority is there, doctor, for putting a limited name or definition upon the word syrup as applied to the article produced from what you would call stalks—corn?

A. Corn you say?

Q. Yes.

A. I think the term corn, depending upon the connection in which it is used, may refer either to the grain or to the stalk, if that is what you mean.

Q. No, I am talking about why an arbitrary definition for the word syrup is applied to—

A. Oh, syrup, as applied to what?

Q. As applied to the article that you get, from corn or starch.

A. Are you referring to our standards now, our definitions, standards for syrups?

Q. Yes, standard definitions.

A. I believe that the ordinary consumer when he purchases syrup has in mind the manufacture in this country, as we mean the manufacture, of cane syrup or sorghum or maple syrup and thinks he is getting the concentrated sap of some sugar producing plant.

Q. Why do you say that, what do you know about what is in the mind of a purchaser who comes into the store to buy syrup?

A. Because I have purposely made quite an extended investigation on that subject and have asked a large number of consumers and purchasers as to their impressions when they purchased corn syrup.

Q. Now, hasn't this term syrup been applied to glucose for a great many years, a hundred years say, ever since they started to manufacture glucose?

A. Corn syrup?

Q. No, syrup, hasn't it been demonstrated as a syrup?

A. Why, it has been sold as a syrup, as it has been sold for molasses and sorghum and Honey Drips and Fancy Table Syrup.

Q. Hasn't it been known I say ever since the manufacture of glucose began?

Mr. OLIN: You mean the unmixed article?

Mr. FAIRCHILD: Yes, the unmixed article.

A. Not in this country. Sometimes as "starch syrup." Never I believe merely as "syrup."

Q. Well, you find it referred to very frequently, don't you, as a starch syrup; some times as a corn syrup; in every book that you have referred to it is referred to as a syrup? Don't you find that wherever you go, wherever you read about it, don't you read of it as a syrup?

A. No sir. It is almost universally in this country called glucose.

Q. Well, when the character of it is referred to isn't it as a syrup?

307 A. It is called as a substance of a syrupy consistency, yes, and very broadly speaking as a syrup.

Q. I ask you if it isn't referred to as a syrup too?

Mr. OLIN: He said very broadly speaking as a syrup.

Mr. FAIRCHILD: Broadly speaking—I am not asking him to define what the man who writes an article or writes a treatise may have in his mind when he uses it.

Q. I ask you if that name isn't applied to it?

A. That name appears in books that I have read, but the name which appears most frequently is glucose.

Q. I am not asking you as to most frequently, but I am asking you if it isn't frequently applied in that way?

A. I believe I have given the facts as to that when I read from those books, because I hid nothing, I gave the facts as they appeared.

Q. Now, take this work of Leach's, there are two editions of that here; we have an edition of 1904, you have one of 1905?

A. Yes.

Q. And in both of these editions it reads in this way: 1905, page 440, "Commercial glucose, otherwise known as mixing syrup, cereal syrup, and starch or corn syrup."

A. Does it say "starch syrup" there?

Q. It most certainly does—or "crystal syrup," excuse me.

A. Well, I read that definition of glucose from Leach, but I said in the text proper of the book outside of that one statement there is no reference to glucose as a syrup or as corn syrup.

Q. Well, he says there that it is "otherwise known as."

A. Certainly, he gives the commercial names under which it was being sold at the time that book was written whether honestly or dishonestly.

Q. The Century Dictionary says that glucose is a sugar syrup obtained by the conversion of starch?

308 A. Yes sir, and I believe that the Century Dictionary is inconsistent with itself in saying that, because I quoted this morning the definition the same the Century Dictionary gives for "sugar syrup."

Q. Well, the Standard Dictionary says it is made commercially by treating starch with dilute sulphuric acid and the resulting solid product is called grape-sugar and the syrup glucose.

A. Yes sir, as they might speak of phosphoric acid being evaporated down and called a syrup, when it gets a consistency of syrup.

Q. Webster's Dictionary says: "Glucose: the trade name of a syrup."

A. Which Webster's is that?

Q. Are you acquainted with the special report of the custom bureau of manufactures for 1905?

A. I don't remember that.

Q. An official document of the United States government, page

138, part I, states of industries: "Glucose, a thick syrup called glucose, made from corn starch."

A. Yes, but I fail to find any dictionary definition for syrup by which glucose could possibly be included, except the broad definition in the Standard Dictionary which defines syrup as "a thick, sweet liquid," which would include mucilage of acacia sweetened with saccharine.

Q. The Year Book of the department of agriculture for 1905, page 241, have you seen that? It is an article by Dr. Wiley on Table Syrups?

A. I have seen the book and I may have seen that article. I don't remember the article specifically.

Q. In which he says: "The chief ingredient of this mixed syrup is glucose, itself a syrup of fine body." Have you seen that?

A. I may have seen it. I have seen that quotation.

Q. Who is this Dr. Wiley?

A. Dr. Wiley is chief of the bureau of chemistry of the United States department of agriculture and one of the members of the standards committee that adopted the standards in Circular No. 19.

Q. Well, in Europe, Germany in particular, and France, 309 where they make syrup out of potatoes, is called "potato syrup" isn't it?

A. Some times "potato syrup," more frequently I believe "starch syrup."

Q. Don't you find in the German works on the subject of glucose, practically all the time, it is referred to as potato syrup?

A. No, I believe more frequently as starch syrup.

Q. You think they apply both?

A. They apply both, but starch syrup I think is the most frequent.

Q. It is always denominated, however, as a syrup?

A. Starch syrup or potato syrup, mostly starch syrup.

Q. Is there a syrup called malt syrup?

A. Why, I have heard about that product, but it is not a syrup or any preparation that is consumed on the table. I don't think it comes on the market in this country for food purposes.

Q. Well, you very frequently have that term "syrup" applied to articles that are not consumed on the table, haven't you?

A. Yes sir.

Q. You went yourself to the work here that more properly relates to medicine to get a description or definition of this word, didn't you, here from the British Pharmacopœia?

A. Yes sir. That is intended as a standard for drugs. The British Pharmacopœia is a standard for drugs without any doubt.

Q. And you find that word syrup applied in a great many instances in drugs, don't you?

A. Yes, but never to glucose. When it speaks there of "syrup of glucose" that doesn't mean glucose, but it means a mixture of one part of glucose with two parts of simple sugar syrup.

Q. That doesn't answer my question. (Question read.)

A. Yes sir. There is a class of medicinal preparations known as

310 "syrups" which are either simply a solution of cane sugar in water which constitutes simple syrup, or such a solution flavored or medicated.

Q. Now, have you seen the United States Dispensatory of 1907 which treats of this subject of glucose?

A. I have seen the United States Dispensatory of 1907, yes.

Q. Have you noticed on page 1071 where it says: "According to the manufacture of glucose, when glucose syrup alone is desired, the process of conversion is stopped when the starch has disappeared, so that the syrup contains both glucose and dextrin."

A. I may have seen that.

Q. Isn't it a standard work?

A. The United States Dispensatory?

Q. Yes.

A. Yes, certainly, it is a standard work on drugs.

Q. Have you seen that quotation in there, that statement?

A. I am not sure—but I can produce the Dispensatory. I know that I looked in vain for the word corn syrup in the United States Dispensatory and in the National Dispensatory.

Q. Well, now, isn't this work made a legal standard under the food and drug act—isn't that referred to in the food and drug act?

A. No, not even recognized as a standard for drugs. Only the United States Pharmacopœia and the National Formulary are recognized as standards for drugs.

Q. Where is that?

A. In the food and drug act of 1906. I have a copy here.

Q. You say that this is not a standard work?

A. I said it was a standard work. There are two dispensatories. The principal dispensatories published in the country are the United States Dispensatory and the National Dispensatory. Neither of them give the term "corn syrup." Both of them use the term "syrup" for any thick liquid. They describe glycerine as a "syrupy liquid."

311 Q. All of the standards that have been promulgated by the department of agriculture contain the word, in describing glucose, as "syrupy", describes it as "syrupy" doesn't it?

A. Oh, I wouldn't deny the use of the word syrupy in that sense, in the English language, but not as applied to a food product.

Q. Do you know any edible product which is used of the consistency of this what we call corn syrup or glucose that isn't called by the consumer a syrup?

A. As I stated before, I believe when the consumer calls for a syrup—

Q. No, you may answer that by yes or no.

(Question read.)

A. No, I think the consumer thinks he is getting a syrup when he buys something of that consistency, a true syrup.

Q. And he calls it a syrup, knows it as a syrup, recognizes it as a syrup?

A. No, he thinks, in my opinion, that he is getting the concentrated juice of a sugar producing plant.

Q. I am not asking you that? I am asking you if he doesn't recognize it as a syrup and know it as a syrup?

A. Yes, I think he thinks it is a true syrup.

Q. Now, referring to these patents that you say have been taken out for the manufacture of sugar from the corn stalk, do you know when those patents were taken out?

A. I do not. Mr. Kundert is looking that up now, to see whether we can get those patent records in the city.

Q. Was it something away back sixty years ago, or recently?

A. I wouldn't want to say with certainty as to that even.

Q. Are they the same patents that you referred to the other day when you were saying that they were proposing to make paper out of the stalk and sugar out of the other, supplementing and putting the two together in order to make it a profitable business?

312 A. No sir, I hadn't reference to any patents at all, but to investigations made by the United States Department of Agriculture.

Q. Do you know whether those are being made under certain patents that have been issued in recent years?

A. I don't know that, no sir.

Q. Do you know who they are being made by?

A. No, I don't know the persons who are making them.

Q. Have you ever seen anything about it excepting in newspaper accounts—do you know anything about it except what you see in a newspaper?

A. I said that was the extent of my information as to those investigations.

Q. Whether they are successful or failures, you know nothing about?

A. I said that the other day, yes sir.

Q. Well, where do you get any other information about any patents that have been issued?

A. I didn't think the process had been patented. I thought that the United States government was doing that for the public good and giving it to the people of the country, that was my understanding of it, as they make lots of other investigations in the United States Department of Agriculture.

Q. But the progress of the investigations you know nothing about?

A. Except through those newspaper reports, not personally.

Q. Now, you referred here to certain analyses that you found in patent reports back in 1843 and 1844?

A. No, I don't think that there were any analyses in the patent report.

Q. No, they were referred to in the patent report for 1843 and 1844, which I believe then embraced the Department of Agriculture you said.

A. I don't think there were any analyses in there as I remember. I think they were simply reports as to the practical manufacture of cane and corn syrup and corn sugar, without giving any analyses.

313

Q. I think you will find an analysis in there.

A. Perhaps; I don't remember. But there was abundant analyses in the department of agricultural reports for 1877, 1879, 1881 and 1882.

Q. Well, do you know that anything ever came out of those, the experiments that were being made at that time—weren't they abandoned?

A. I do not think that either corn syrup or corn sugar are on the market at the present time.

Q. Did you ever know if its being on the market as made from these stalks?

A. Certainly not extensively. It might be on a small scale, from farmer to farmer, or a farmer delivering it in the city.

Q. No, I am asking you commercially, whether that has been on the market as an article of commerce and trade, to your knowledge at any time?

A. Well, not on any large scale, certainly not.

Q. Do you know anything about it, whether it was ever on the market as an article of commerce on a small or large scale?

A. Why, I got the impression from the publication of the Commissioner of Patents that it was being sold perhaps by farmers locally in the village or something of that kind.

Q. When was that?

A. In 1843 or 1844.

Q. In order to get the sugar out of the corn stalks, you must take the stalk before the corn has ripened and been gathered?

A. As I stated this morning, the most successful yield of corn syrup was produced from sweet corn immediately after the sweet corn was taken for canning and—

Q. That answers my question, except in a roundabout way.

314 Mr. OLIN: He hasn't completed it yet.

Mr. FAIRCHILD: He could have answered it yes or no.

A. And I believe I have read from the report of the—

Q. You have answered the question, doctor?

(Question read.)

A. No sir, you must not.

Q. You must not take it before the corn is ripened and gathered? Now that's my question.

A. And I answered it, you must not take it—it is not necessary. You can take it either after it has ripened or before it has ripened.

Q. Now, would there be as much saccharine matter in it then as if taken when it is in the green before the ear has matured?

A. I was going to tell you that in the case of sweet corn the greatest amount of saccharine matter was found right after the sweet corn had been picked for canning. I don't remember exactly as to the field corn, but there was a statement there which I read that for two years they had successfully obtained 900 pounds of sugar per acre from field corn after the grain had thoroughly ripened.

Q. They said at the rate of that, didn't they, at the rate of 900 pounds?

A. Per acre—Oh, yes, certainly.

Q. It isn't stated there that they ever got over five pounds of sugar out of any experiment they ever made?

A. I don't know how much land they had under cultivation.

Q. Now, what I was getting at, doctor, was this, doesn't the sucrose—that is what you call the sugar in the corn, isn't it, in the stalk?

A. The so-called cane sugar.

Q. Doesn't that go into the ear when it ripens, practically,
315 a very very large part of it?

A. Oh, yes, that is doubtless the method in which the plant carries nourishment to the ear and changes that into starch.

Q. That being so, in order to get the sucrose out of the stalk itself, you must take it before the sucrose passes into the ear mustn't you?

A. That does not seem to be born- out by those experiments, because we can—

Q. Well, I am asking you if that wouldn't be your idea of it?

A. No, it wouldn't because I base my idea on those positive experiments.

Q. You haven't any opinion then outside of what you have read of those experiments?

A. I suppose the greatest strain upon the plant, the greatest working capacity of the plant would be at the time of the formation of the grain. How much sugar is left behind in the stalk after the grain is ripened is best shown by experimentation.

Q. Well, do you know about how much that is?

A. I gave you the results as published in the report.

Q. No, you haven't given us any results of any experiments after the grain was ripened.

A. Yes sir, those 900 pounds per acre referred to.

Q. That was green corn, wasn't it?

A. To settle that question I will read from that book.

Q. When I talked about corn that's ripened, I mean the corn that is ready to grow of itself as a seed, that is fully matured and hardened and ready as a seed; I am not talking about cutting it at any other stage.

Q. I referred to two experiments, one upon sweet corn, in which it is found that the largest yield of corn syrup was produced right after, or I suppose at the same time, coincident with the condition of the sweet corn when it could be picked for the market;

316 then this other experiment, which was entirely different and was performed with field corn; it says: "Two years in succession sugar has been produced from stalks upon which the corn had ripened."—I suppose *the* means ripened in the sense you say—"at the rate of fully 900 pounds per acre".

Q. Well, is there anything there in this report to show or do you know of anything which has been subsequently developed which would show that such a production as that would be a profitable production from the corn stalk?

A. A profitable production?

Q. Yes sir.

A. That would depend, as I argued the other day, upon competition, and I don't think such a product could be produced, certainly not in competition with glucose under the name of corn syrup.

Q. Well, it would have been produced long ago, wouldn't it, if it could have been produced in competition with cane.

A. I believe that if at the time of those investigations or a little later the best sugar industry hadn't started in this country and if the glucose industry hadn't started in this country, which practically ruined the sorghum industry and the molasses industry and made possible this corn syrup industry, I think it might have proved a success.

Q. In any of these reports, doctor, do you find that the syrup product from the corn stalk is called corn syrup?

A. Yes sir, I read from that this morning I believe.

Q. You read "corn stalk syrup".

A. No sir, I read "corn syrup" and "corn stalk syrup". On page 259 of the report of the department of agriculture for 1877 appears this sentence speaking of maize syrup and corn syrup: "Corn syrup should not be boiled to so great a density, but it may without detriment be reduced to as low a point as is indicated by a temperature while boiling of 236 degrees Fahrenheit to 239 degrees Fahrenheit".

Q. In the patent office reports of 1843 and 1844 it is referred to on page 450 as "corn stalk sugar and molasses". On page 138 of the patent office reports of 1844, it is there referred to as "corn stalk sugar".

A. Yes, I have seen the name "corn stalk sugar" which I think would be a correct one.

Q. On page 142 "corn stalk sugar and molasses".

A. Yes, I think "corn stalk sugar" would be a correct name, corresponding to "corn starch sugar" showing the source.

Q. Have you an article by Dr. Wiley in the Universal Encyclopedia and Atlas, volume II, pages 195 and 196, on the production of corn sugar from maize and corn stalks?

A. Yes sir, I have.

Q. Have you got the work here?

A. I think I have. (Produced by witness).

Q. Have you noticed this statement by Dr. Wiley, referring to this subject: "In a small way and for domestic consumption, a fairly good syrup may be made therefrom (maize stalk). Enthusiastic promoters of enterprises for making sugar from maize stalk should be reminded that economically the task is a useless one so long as cheaper and better sources of raw material are available in practically inexhaustible supplies".

A. I have read that part of the article.

Q. Can you tell us what percentage you find of sucrose in the corn stalk after the ear has ripened?

A. I would have to look it up in the Year Book.

Q. You haven't any knowledge of it yourself?

A. Not definite enough so that I would want to testify to it.

Q. You would say that it would be over nine or ten per cent?

318 A. In the juice you mean?

Q. In the juice.

A. If I recollect rightly, it some times runs up to nine or ten per cent.

Q. That is the very extreme, isn't it?

A. You are referring now to sucrose I suppose.

Q. Yes.

A. That is the extreme, although there is in corn juice always a very appreciable amount of invert sugar present.

Q. Do you know what the taste of the extraction of the corn would be, to take the juice out of the corn, showing what the taste is?

A. Why, I have tasted it, the sweet corn. I have never tasted the other corn.

Q. Do you find any bitter taste to it?

A. Not that I recollect.

Q. Well, have you tasted it when it has been extracted in large quantities for the purpose of making any experiments with it?

A. I have seen a sample that was submitted to me by Dr. Wiley of the United States department of agriculture and I tasted that, but the sample was in a state of fermentation and I couldn't get a very good impression of it.

Q. Well, isn't it a fact that there are certain ingredients in the stalk itself, bitter elements in the stalk itself, that makes the juice as extracted bitter.

A. That would not be borne out by the reports on the subject, in this report of the commissioner on patents, because—

Q. 1843 or 1844?

A. 1843 or 1844, because they speak there of it as a very palatable product superior to the sorghum of the market and molasses of the market. I don't suppose the juice of the corn has changed very much since.

319 Redirect Examination:

Q. Something has been asked you about the use of this term "liquid." Do you know of many foods that are in the form of a liquid that are not called that?

A. You mean thick liquids that are ordinarily called syrupy?

Q. Yes.

A. Malt extract would be one and condensed milk would be another, sweetened condensed milk.

320 CHARLES F. CHANDLER, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Professor Chandler?

A. City of New York.

Q. What is your age?

A. Seventy-two.

Q. Where were you educated?

A. At the Larn Scientific School of Harvard University and at the universities of Gottingen and Berlin in Germany.

Q. What official positions have you held in the line of your profession?

A. With the title of assistant I was put in charge of the chemical department of Williams College in the spring of 1857, was afterwards made professor, remained at that institution for eight years, and then went to New York and was made professor in the new School of Mines of Columbia University, which afterwards developed a broader institution known as the School of Applied Science. Was also made professor in the New York College of Pharmacy, I think about 1867 or 1868, a position which I still hold, having been president of that institution. It was taken into the Columbia University two years ago as one of the schools of the university. I was for about thirty years Professor of Chemistry in the College of Physicians & Surgeons.

Q. Of New York?

A. Of New York. I was made chemist to the health department in the city of New York about 1867, occupied that position for six years and was then made president of the board of health, a position which I occupied for eleven years. I was also chairman of the sanitary committee of the state board of health for three years, until I resigned.

321 Q. What is your position now, what position are you occupying now?

A. I am Professor of Chemistry in Columbia University and head of the chemical department.

Q. For how long have you been in that position?

A. I have practically held that position for forty-five years. This is the forty-fifth year.

Q. Are you still actively engaged in the work of your position?

A. I am.

Q. Lecturing constantly?

A. I give my regular complement of lectures and supervise the entire work of the department.

Q. Have you made a special study of food products from the standpoint of their purity, adulterations and nomenclature?

A. I have.

Q. When did you first begin this study and along what lines have you pursued it?

A. My first study in this connection was in 1862 I think, when I was called upon to make some analyses of liquors for the Vermont state liquor agency. My next special work in this connection was the general examination of liquors for the Metropolitan Board of Excise of New York. After I was appointed chemist to the health department I made a very careful investigation of the milk supply of New York and suggested proper supervision of that milk supply; also the subject of Croton water, the purity of Croton water, its proper preparation, and was consulting chemist to the Croton Aqueduct Department, with a view of protecting the water supply,

discovering means of protecting the water supply of New York. As president of the board of health it was my business to pay special attention and have supervision of the sale of food in New York as far as the laws made such supervision possible. For instance, I
322 had a number of food inspectors under my direction who inspected all the meat and seized and destroyed spoiled meat or unwholesome meat or diseased cattle. We had to look after the slaughter houses and see that they were so conducted that the meat prepared there would not suffer in quality. We had a regular system of milk inspection and followed up the adulteration of milk. Had several litigations on the subject of the proper supervision of milk and the proper standards for determining the quality of milk. We inspected the fruit stands and seized and destroyed all unwholesome fruit and unwholesome vegetables. Then as a member of the state board of health and chairman of the sanitary committee, the general subject of food and food adulteration was frequently a subject of study. Later the national board of trade offered a prize for the best draft of a law for the prevention of the adulteration of foods and drugs, and I was one of a committee of three to read these law drafts and award the prize, which I did with my colleagues. None of these laws seemed to be entirely satisfactory and taking as suggestions the laws offered, I sat down in my laboratory with Colonel Prentice, the special counsel of the New York health department, and we prepared a draft which seemed to us to be as complete and reasonable as could be drafted at the time, placed this in the hands of the national board of trade, and they secured the passage of it in New York state, and I think some other states, though I am not quite sure which states they were. After this law came on the statute books we endeavored to enforce it.

Q. We won't pursue that any farther. You have, generally speaking, been in touch with the study of and the literature in connection with this subject for how many years?

A. For over fifty years, in one way or another.

Q. Have you made a special study of the subject of sugar and the product commercially known as glucose?

323 A. I have.

Q. When did you begin the study of those subjects and along what lines did you pursue them?

A. I first studied sugar as a student at the German universities from 1854 to 1856, two years, attended lectures in which the subjects of sugar and glucose were discussed and specimens exhibited, and have a vivid recollection of seeing a large mass of grape-sugar made from starch, either in the lecture room at Gottingen or the lecture room at Berlin, I have forgotten which. I also in the laboratory at Berlin of Professor Rosca began to make tests and quantitative determinations of glucose as early as 1855. Ever since 1857 down to date I have taught chemistry and lectured upon chemistry, both generally, and for the last nearly forty years specifically in my classes lectured on industrial chemistry, and also gave regular courses of lectures at Union College on agricultural chemistry. Then I further had occasion to pay particular attention to glucose

in my laboratory. In 1857 I had some medical students studying in my laboratory and I made it my business to make them familiar with the constituents of food and chemicals, and they prepared glucose, experimented with glucose. Then further, in the College of Physicians & Surgeons, we had a laboratory under the immediate charge of my son-in-law, Professor Bellieu, and we arranged a course of instruction there for medical students and had as many as two hundred medical students in a winter, and each medical student was required to prepare starch, to prepare dextrin, to prepare glucose, and subject these substances to various tests and experiments in order to ascertain their character. Further, I was appointed about 1868 chemist to the New York Sugar Refining Company, and immediately made it my business to learn the whole process of sugar refining. I held that position for many years and was sent to Europe in 1869 to study the subject of sugar refining and was fortunate in 324 gaining access to the best sugar refineries in Europe: in Dublin, in England, in France, in Belgium and in Germany. I also in Paris visited a glucose factory where they manufactured glucose from potatoes and where they made a syrup, potato syrup, which was flavored with cane syrup, that is, with refiners' syrup. In 1872 I was employed by a firm of bankers in New York to investigate the manufacture of glucose, as they were considering the proposition of putting about fifty thousand dollars into the business.

Mr. OLIN: What year was that?

A. That was 1872. I carefully investigated the subject and advised them not to put the money into the enterprise.

Q. Did you visit at that time in that connection glucose factories?

A. I did, I visited the factory and saw the whole performance.

Mr. OLIN: You were employed by private persons to investigate, to see whether they had better go into the business?

A. Yes sir.

Mr. OLIN: That is the substance of it, was it?

A. That was the object. In 1883 I was appointed by the president of the National Academy of Sciences as one of a committee of five to investigate the whole subject of glucose and did so, and the report was published by the government at Washington. In 1886 I was engaged as an expert in the litigation brought by, I don't remember now who it was, but the litigation under what were known as the J. B. Beebe patents against Harry Hamlin and his company, on the subject of starch and glucose, and I visited the Buffalo Glucose works and studied the whole subject very carefully of making starch and glucose, and I visited the Peoria works and made a very careful study of every thing that was going on there. In 1904 I was called upon by a firm of bankers in New York to investigate the Kern process of refining sugar, as they contemplated financing the enterprise.

Q. I will ask you if this is a copy of the report made to the 325 National Academy of Science?

A. It is.

Q. Were you actively engaged in the investigations which are the basis of this report?

A. I was. All the samples collected were brought to my laboratory, and some of the analyses were made in my laboratory, some of them were made at Baltimore in the laboratory of Professor Remsen. The collecting of material was largely in my hands.

Q. Who were co-workers with you?

A. Professor George F. Barker of the University of Pennsylvania was chairman. The other members of the committee were: Professor William H. Brewer, who I think was the professor of agricultural chemistry at Yale College, I think that was his title; Dr. William Gibbs, of Harvard University, and Professor and President Ira Remsen, of Johns Hopkins University.

Mr. OLIN: You don't mean he was president then?

A. No, I don't think he was president then.

Mr. OLIN: No, he has been elected president within the last two or three years I guess. He has just recently gone to the Johns Hopkins University.

Q. Are you still a member of the National Academy of Science?

A. I am.

Q. That is made up largely of what class of men?

A. It has a membership of one hundred, and contains representatives of all branches of natural science.

Q. It is chartered by congress, is it?

A. It is chartered by congress, and a special provision in the charter provides that the members of the academy shall respond whenever called upon by officers of the United States government to make investigations and reports without compensation.

Q. What is this commodity known as glucose manufactured from for commercial purposes in this country?

A. Glucose consists of—

Q. No, I ask you what it is manufactured from in this country?

A. From corn.

Q. How long has it been manufactured from that article in this country?

A. I found it being manufactured in 1872. I don't remember how much earlier than that.

Q. Do you know of its ever having been manufactured in this country from anything else than corn?

A. I do not.

Q. Did you ever know of its being manufactured in this country from the starch of commerce?

A. Never.

Q. Now, I will ask you, professor, if the process of manufacture of glucose from corn is a continuous process from corn to glucose?

A. It is a continuous process from corn to corn syrup ready to put into packages.

Q. At any stage of the process of manufacture short of completion is the result or product a finished product? Is there any result at any stage a finished product for commercial use?

A. It is not.

Q. Is there a stage in that manufacture at which the article reaches called green starch?

A. There is.

Q. What stage is that?

A. That is the stage when the hulls and germs of the corn have been separated and the impure starch having been freed from those substances is ready for the next stage of the process.

Q. Now, what is the first stage of the process?

A. The first stage is steeping or soaking the corn in water
327 in order to swell it up, and loosen it so that the kernels can be torn to pieces in the grinding apparatus. The corn is not, properly speaking, ground. It is put between stones which are sufficiently far apart to tear open the kernels without reducing the contents to powder. The next step is to separate the hulls and the germs from the crude, impure starch; in other words, to separate the coarser particles from the finer particles. When that is accomplished we have what is called green starch.

Q. What condition is that in at that time?

A. It's a wet mass.

Q. What is the color of it?

A. We have a dirty white, not pure white.

Q. Wet?

A. Wet.

Q. Are there any impurities in it?

A. Yes, quite a variety.

Q. What are they in general?

A. Well, it is hard to say. There are small particles of bran of the corn that haven't been removed. There is a considerable quantity of nitrogenous matter, protein substances, some dirt.

Q. Is the article one which could for any purpose be used, I mean in trade?

A. No. It is not. It is not a merchantable article.

Q. It is not a merchantable article?

A. No.

Q. From that point on is there a different treatment required for the production of glucose from that required for obtaining corn starch and laundry starch?

A. There is a totally different process.

Q. Is there a different process for obtaining corn starch from that obtaining laundry starch?

A. There is.

328 Q. What is glucose ordinarily obtained from in Europe or manufactured in Europe?

A. Usually from potatoes, but sometimes from sago, from rice, or even from tapioca—at least I have seen statements to that effect.

Q. You know yourself—

A. I know myself that potatoes are the usual material from which starch is manufactured.

Q. Is corn used in those countries at all?

A. I never heard of its being used, and it is my impression that it never is used.

Q. What is the article which we know of here commercially as glucose called in Europe—by what name is it known in Europe?

A. Potato sugar is a very common name for it, and in the liquid condition potato syrup.

Mr. OLIN: Do I understand that is the general name?

A. That is the common name for it.

Q. Do you know of it in the liquid form being called by any other name than potato syrup?

A. I don't remember any other name.

Mr. OLIN: Any other name than potato syrup?

A. Than potato syrup.

Q. Are you confining your statement now, professor, to any one country, or is that so all over Europe?

A. I think it may some times be called starch syrup.

Q. Do you know whether it is manufactured in that country or in any of those countries from the finished product commercially known as starch?

A. I am quite sure it is not.

Q. Do you know of its being manufactured from starch, as we understand the word commercially, in any country?

A. No, I do not. I think the manufacture of glucose, 329 potato syrup, starch-syrup, is always a continuous process and is a different process from the manufacture of commercial starch.

Q. When the word starch is used in trade language, what is understood by that word?

A. Laundry starch.

Q. A finished product?

A. A finished product.

Q. Do you know whether in England the article which we call glucose here is known by the name of glucose—that is, some times?

A. I am not quite sure.

Q. Now, you have called this article corn syrup in one statement you made. Is that a proper designation for it?

A. I think it is the most proper, most truthful name that can be applied to it.

Q. Why would you say that?

A. Because it is a syrup and because it is made from corn and there is no other syrup that is made from corn.

Q. Or can be made?

A. Or can be made—commercially—practically.

Q. Now, how long have you known or do you know of, either personally or from your investigations, this article has been known as corn syrup?

A. I have no definite recollection when I first heard the term corn syrup, but in the investigations of the committee of the National Academy of Sciences in 1883 I know we found corn syrup to be one of the commercial designations of this substance, and it is so stated in the report.

Q. Where, do you remember?

A. It is on page 73 of this copy. I will state that there are two editions of this report. The edition which I have in my hand is

330 the full report of the National Academy of Sciences for the year 1883, and it includes this report and a good many other things. I think the edition which the learned counsel for the prosecution has in his hand is a special edition in which the report on glucose is printed separately.

Mr. OLIN: You happen to labor under a misapprehension. I am very glad to say we have just exactly the same thing.

A. I made the statement because I thought when you compared your copy with mine there was some hesitation to pronounce it the same thing, and I knew there was another edition. It is on page 73.

Q. What is the statement as made there?

A. The statement is made here that "Starch-sugar appears in commerce in a great variety of names, as follows: (a) the liquid varieties; glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose".

Q. Will you state whether there is a consensus of opinion among scientific men of note as to the propriety of this name for glucose in the country?

A. There is a consensus of opinion among the most distinguished chemists in the country that corn syrup is the proper name for this substance. I had in my possession letters from them to that effect which letters were presented and in connection with the report and some other documents which I myself wrote were placed in the hands of the commissioner of agriculture.

Q. At the hearing in which this decision was rendered that has been referred to here?

A. Yes, at that hearing.

Q. Can you give us a reference to the authorities that you have referred to recognizing this name as a proper one?

A. I can. Prof. Charles Baskerville, College of the City of New York, Prof. Marston T. Bogert, Professor of Organic Chemistry for Columbia University. Prof. William H. Brewer, 331 of Yale College, President of the Connecticut State Board of Health and member of the National Academy of Sciences. Dr. H. Carmichael, Chemical Engineer of Boston. Prof. Charles F. Chandler (I don't need to read that) Columbia University, member of the National Academy of Sciences. Prof. Irving W. Fay, Polytechnic Institute, Brooklyn. Dr. A. H. Gill, Massachusetts Institute of Technology, Boston. Prof. C. H. Goessman, Massachusetts Agricultural College, Amherst, Mass., who I might say was for many years the manager of a sugar refinery in Philadelphia. Prof. Walter S. Haines, Rush Medical College of Chicago. There are two reports which are not in this collection of mine here, because the writers of them preferred that they should be in a sense private communications to the secretary of agriculture. One was Prof. Richards of Harvard University, member of the National Academy of Sciences, and one was Prof. Chittenden of Yale College, the great physiological chemist; he is a member of the National Academy of Sciences.

Q. Are their opinions given?

A. I haven't them here.

Q. They are not attached as a part of this document that you hold in your hands?

A. No. Prof. Charles Loring Jackson of Harvard University, member of National Academy of Science. Prof. Ralph W. Langley, Flower Hospital of the New York Homeopathic College. Dr. Ernest J. Lederle, formerly President of New York Board of Health. Prof. J. W. Mallet, University of Virginia. Prof. Charles E. Monroe, George Washington University. Prof. S. P. Sadtler, formerly President of the University of Pennsylvania. Prof. Charles R. Sanger, Director of the Chemical Laboratory, Harvard College. John A. Sherer, Analytical and Consulting Chemist, Speciality Sugar Analysis, New York. Prof. Henry C. Sherman of Columbia University, who was formerly connected with an agricultural experiment station and has charge of instruction in food analysis. Prof. Edgar F. Smith, University of Pennsylvania, a member of the National Academy of Science. Prof. Thomas B. Stillman, Stevens Institute. Charles Wesley, formerly with the American Glucose Company in Buffalo. H. J. Matz, Warehouse Superintendent of the New York Glucose Company, and Albert H. Fisher, Superintendent of the syrup department of the New York Glucose Company.

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Q. State whether you have known this article to be called commercially "corn syrup" since the date of that report, continuously?

Mr. OLIN The date of which report?

Mr. FAIRCHILD: That he had in his hand a moment ago. 83.

A. I have heard the name from time to time.

Q. Will you give us some of the reasons, if there are any, other than those you have already mentioned, why the word "corn syrup" is the proper and the preferable name for that article?

A. In the first place the name syrup has been given to solutions of glucose ever since glucose was discovered, practically. It was in 1811 when Kirchoff discovered the process of making sugar from starch. I find that as early as 1813, two years later, an article was published in the bulletin of the Society for the Encouragement of Knowledge, in Paris, entitled "Starch Sugar and Syrup," and in following down the technical literature from that time to this—

Mr. OLIN: I object to this unless the witness can refer us to the books and pages where we can examine them, as I take it, if I am right, if wrong the witness will correct me, the witness is reading a list of authors prepared I think by him at a former time and submitted to the secretary beginning, according to my record here, on page 13. Am I right?

A. You are right.

Mr. OLIN: Now, we think we should be referred, if he is going to refer to these authorities, to the volume and page.

333 Q. You have the volume, haven't you?

A. The volume and pages I will give you in this list, and I will cheerfully provide counsel with a copy of the list.

Q. Well, you might, when you are referring to these different authorities, refer if you can to any volume or book in which they may be found.

A. They are all arranged chronologically and the volumes are stated.

Mr. OLIN: The volume and page is stated, is it, in each case?

A. The volume and the page is stated in every case.

Mr. OLIN: And you are simply confining yourself to this statement here?

A. I am. I didn't intend to read the list. It is several pages. I was simply referring to that first publication which I found and going on to say that following down that list—I might further say, that this isn't a complete list by any means; this is a list which I compiled in my own laboratory in an afternoon. I presume I could have found twenty times as many references if I had thought it desirable. So in 1813 I found the earliest reference in which the term syrup was applied to the sugar prepared from starch.

Q. You stated in tracing the literature down from that time?

A. In tracing the literature of the subject. In 1813, the same year, I found an article by Bouriart in which he speaks of "starch sirups" and "potato-sirups."

Q. That is in what?

A. That is published in the bulletin for the Society for the Encouragement of Arts. In 1816 I find a patent for preparing "malt-syrup." In 1833 I found an article in the Journal for Practical Chemistry on Syrup by Action of Malt or Sulphuric Acid on Starch.

Q. I was going to ask you how many authorities had you compiled or can you directly refer to now on that subject? I don't know but it is just as well to go right thru. I think I will. Go right
334 thru the list.

A. There are forty-five of them here, beginning with 1813 and ending with 1907.

Mr. OLIN: I object to it as not being competent, but if it is competent, if he is going to simply read what is in that list, you might cut matters short by just offering those pages.

Mr. FAIRCHILD: Well, I will do that. I will cut them right out.

Q. I show you, professor, Exhibits 168 to 172, inclusive, contained in "Copies of Opinions of Chemists and Others on the Meaning of the word "syrup." That publication or book covers a list of the chemists and scientists that you have referred to as designating this article properly as a syrup.

A. The list does.

Q. Have you the opinions of others or the opinions in any other form than in this list that you have given us here of any of these?

A. This list I have given you is the list I have made up from the technical literature.

Q. Have you any correspondence with any of the persons mentioned in that list or others on this subject?

A. No, not on that list. I have copies of all the letters which were prepared by those different college professors and technical chemists whose names I read. I have them here, with the exception of the letters of Professors Chittenden and Richards.

Q. Are these letters in this same publication?

A. These letters are in this same publication.

Q. Where?

A. They follow the list. The list is the first thing after the title page and the letters follow alphabetically immediately after the list.

By Mr. OLIN:

335 Q. You don't mean the letters follow alphabetically, you mean the letters follow along of these men, the names were arranged alphabetically I guess, doctor.

A. Yes, I mean the letters were placed in the alphabetical order of the writers.

Q. Are they? Then it is my mistake. Beginning on page 1 with Baskerville's letter?

A. Yes, page 1.

- Q. And ending?

A. And ending with Fisher's letter on page 42.

Q. Well, that is an affidavit, isn't it, Albert H. Fisher?

A. Yes.

Q. They end on page 41 and those pages include your preparation?

A. Yes sir.

By Mr. FAIRCHILD:

Q. I will ask you, professor, to refer to pages 1, 2, 3, and 4 and to pages 19 to 34 inclusive and ask you whether you know those to be the opinions of the persons purporting to have signed them on this subject?

A. I do.

Q. Are those men who purport to have signed these statements eminent in their profession?

A. They are.

Q. I see that some of them sign their names without their titles. I will ask you if those men, such for instance as Ernest J. Lederle, is a scientific man capable of speaking on that subject authoritatively?

A. Dr. Lederle was graduated at the School of Mines of Columbia University as a chemist—

Mr. OLIN: I object to this. It seems to me he could answer this question by yes or no.

Objection sustained.

336 Exception by defendant.

A. I answer the question yes.

Mr. FAIRCHILD: I offer in evidence pages 1 to 4 inclusive and 19 to 34 inclusive.

Mr. OLIN: I would like to ask the witness a question or two before they are received.

Court: You may do so.

By Mr. OLIN:

Q. Doctor, you stated that these various men whose names you

read entertained the opinion the same as you do that the term "corn syrup" was a proper term to be applied to this article, as I understood you—is that right?

A. I think I made that statement. That's my opinion. Of course there is a difference in the wording of these different letters.

Q. Is your statement as to their opinion based mainly on these letters which I understand you have received and have been referred to here?

A. It is in the case of many of them, but not with all.

Q. But that is true generally, isn't it?

A. It is true probably of more than half of them.

Mr. FAIRCHILD: Mr. Olin, I perhaps can shorten that up a little by instead of offering all those, confining it to certain ones.

Mr. OLIN: I think if you offer any of them, you had better offer the whole of them.

Mr. FAIRCHILD: Well, I will withdraw that offer and offer certain specific ones. I offer the one on page 2, Prof. Marston T. Bogert; the one on page 22, Prof. Walter S. Haines; Prof. Charles Loring Jackson on page 23; Prof. J. W. Mallett, page 26; Prof. Charles E. Monroe, page 27; Prof. S. P. Sadtler, page 28; Prof. Henry C. Sherman, page 32; and Prof. Edgar F. Smith, page 33.

337 Mr. OLIN: We object to it as incompetent and immaterial.

Court: Why incompetent?

Mr. OLIN: Why, it is hearsay.

Court: Are you objecting because the original letters are not produced?

Mr. OLIN: No. But it is unsworn testimony.

Objection overruled.

The letters so offered and received in evidence were marked Exhibit 173 to 180 inclusive.

Exhibits 168 to 180 inclusive are hereto attached and made a part hereof.

By Mr. FAIRCHILD:

Q. What have you to say in regard to the name "syrup" as a proper name to be applied to this commodity?

A. It is a proper name. It is a solution of sugar. It is a thick solution of sugar. And that is what a syrup is. It has been customary from my memory to call a thick solution of sugar, whether it contained sugar alone or whether other substances were associated with it, it has been customary to call it "syrup."

Q. How is it in the common, every-day parlance in regard to the use of such a term as that as applied to an article used for table use, prepared for table use?

A. It's a common name for thick solutions containing sugar for table use.

Q. Will you state, doctor, the sources from which glucose or what we call dextrose may be obtained?

A. Glucose, including dextrose, occurs as the sweetening agent of most all fruits. It applies to the pear, apples, peaches, cherries, grapes, strawberries, raspberries, all common fruits, owe their sweet-

ness to glucose, partly dextrose and partly levulose. This sugar also occurs in all fruit preserves and jellies and it often happens—

338 COURT: When you say "this sugar" what are you speaking of?

A. Glucose. And the cane sugar that is used in putting up preserves is often converted into dextrose and levulose before the preserves are consumed. In my early experience at home I have often seen my mother empty a jar of preserves into a kettle, because, she said, they had "candied". The dextro-glucose had crystalized out and the preserves had to be heated in the kettle in order to dissolve the crystals of dextrose and bring them into solution. All fermented fruit juices contain dextrose and levulose, that is, glucose. Grape wine owes its sweetness to this kind of sugar. Cider owes its sweetness, when it has any, to this kind of sugar. Honey contains this sugar, and it often behaves like the preserves and becomes thick and almost solid by the crystallization of the dextrose. It can be brought into a condition of fluidity again by applying heat in order to dissolve the dextrose in water. Even maple sugar, and probably maple syrup, contain dextrose and levulose. I noticed an analysis by Wells, the great sugar chemist, in which he found 13.95 per cent of glucose in maple sugar. It is really the most widely distributed sugar in nature. It occurs in a greater variety of fruits and plants probably than cane sugar.

Q. Could it be produced from many of these or all of them that you have referred to?

A. It could be produced from all of them. It wouldn't pay, because corn is so much cheaper.

Q. Now, but my question was from what sources could glucose or dextrose be obtained?

A. It might be produced from any of these articles that I have mentioned?

Q. Now, what other things?

A. Corn, potatoes, sago, rice, tapioca, any other starchy product, wheat, rye, oats, barley, buckwheat, it might be produced

339 from any of them.

Q. Are there still others sources?

A. Hundreds of others—chestnuts, horse-chestnuts.

Q. Might it be produced from wood fiber?

A. It might be produced from wood fiber, from cellulose. Any form of cellulose may be transformed into dextrose.

Q. You say cellulose, what is that in common parlance?

A. Cellulose is vegetable fiber. It constitutes the skeleton of all plants. It is known to us most familiarly as cotton and linen and also wood fiber.

Q. After it has been made into linen cloth, could it be made from that even?

A. It can. I have seen it made in my laboratory from linen.

Q. Do these publications refer to its being made from sawdust?

A. It has been suggested, and it has been made as an experiment, but never economically.

Q. I don't mean that, but can it be produced?

A. It may be produced from sawdust, because that is vegetable fiber.

Q. Now, what enters into or enter into the article glucose as we know it commercially?

A. Dextrin, maltose and dextrose. Maltose and dextrose are sugars. Dextrin is a gum.

Q. Now may dextrin be converted into dextrose?

A. Oh, yes. It is the first result of the transformation of starch in the process of making sugar from starch.

Q. That is, dextrin is?

A. Dextrin and maltose, and last of all dextrose. Dextrose is the final product, and if the process of treatment is continued long enough the dextrin and maltose will be entirely converted into dextrose. If the process is interrupted at an intermediate stage, 340 then there will be a certain percentage of dextrin and a certain percentage of maltose not yet converted into dextrose.

Q. Now, you have referred to dextrin as a gum. Is it in any proper sense or may it in any sense be termed a mucilage?

A. No. I think the statement that mucilage is a normal constituent of corn syrup is a gross perversion of the facts of the case. As we understand mucilage, it is an offensive, impure form of dextrin which is kept on desks in paste pots and becomes more or less offensive. That dextrin was never purified. It is an impure and often a more or less decomposed form of dextrin. It isn't the same substance that exists in corn syrup. Corn syrup contains dextrin without the impurities that are contained in the commercial dextrin. Commercial dextrin is usually manufactured by sprinkling starch with dilute nitric acid and putting it into ovens and subjecting it to a temperature of between three and four hundred degrees Fahrenheit. The nitric acid acts upon the starch and converts it more or less completely and at the same time the heat acts upon the starch and between the heat and the nitric acid the starch is more — less completely converted into dextrin. This is then sold.

Q. That is commercial dextrin?

A. It undergoes no process of purification. Whatever impurities were in the original starch and whatever nitric acid is left in it and whatever products have resulted from the nitric acid, they all remain in it. The only thing that is ever done to the dextrin is to grind it into powder. It is sold generally in the form of a powder, some times nearly white, and some times quite dark colored.

Q. Is dextrin a healthful food product?

A. Dextrin is one of the most common articles of food that we consume. Every loaf of bread is coated with a crust, which is rich in dextrin, often as much as 18 per cent. and when the bread is made up into small loaves and finger bread, by which the amount 341 of crust is increased, of course we get a much larger percentage of dextrin than we do when the bread is baked in loaves. Toasted bread is very rich in dextrin, because the bread has been cut into thin slices and the entire surface and edges of the

slices have been exposed to a high temperature before the fire, and the starch has been largely converted into dextrin. The physician knows this and when his patient is convalescing and can take a little nourishment one of the first forms of food which he gives him, because it is so easily digested, is toast tea, which is made by steeping slices of toasted bread into hot water; the result is that the patient gets a solution of dextrin.

Q. Now, in the making of glucose is it essential that dextrin should be contained in it in that form in order that it should remain in the syrupy form?

A. It is. In the early history of the glucose industry that wasn't understood, and in the report of the National Academy of Sciences in 1883—

Mr. OLIN: I don't see why there is any need of spending time on such a matter at that, when Dr. Fischer plainly stated the same thing.

Mr. FAIRCHILD: Yes, and he held out the idea that it was a mucilage, and I wanted to combat that idea. Finish your answer.

A. It was not mentioned in that report, because at that time the members of the committee were not aware of the fact, and they knowing that dextrin was not a sugar regarded its presence in the glucose as unnecessary and as diminishing the amount of sugar.

Q. A quotation was made from that report here yesterday to that effect, was it?

A. Yes, that was the question. But later I learned that in putting liquid glucose on the market it was found that the entire mass solidified in the barrel and when the dealer attempted to draw
342 glucose from this barrel nothing would run out. That was investigated, and it was found that by leaving in the glucose a certain percentage of dextrin the crystallization of the dextrose was prevented. So it is absolutely necessary to have the dextrin in the glucose, otherwise it wouldn't remain a syrup, but would solidify.

Q. Now, in making a perfect sample of anhydros sugar, state whether the dextrin is all removed and converted into dextrose.

A. It is. There is no dextrin in pure dextrose, where they desire to have it crystal-ize.

Q. Will you examine that and state whether—(bottle shown witness)

A. It looks like crystal-ized anhydros dextrose.

Q. Is this anhydros sugar an article of commerce?

A. It is.

Q. Is glucose recognized among scientific men as a clean, healthful, nutritious food?

A. It is.

Q. For man?

A. It is.

Q. Do you know how refiners' syrup is obtained?

A. I do.

Q. How is it obtained?

A. In refining raw sugar, the first step in the process is to dissolve the sugar in boiling water then clarify the solution, strain it through bags, filter it through bone-black, boil it down in a vacuum pan, in order to crystalize out as much as possible of the pure sugar. The product, which then consists of crystals of sugar and molasses or syrup, has to be strained in some way. That is some times accomplished by putting it in molds, where it solidifies into the old-fashioned loaves; some times it is put into a centrifugal machine; but in either case, the mother liquor, as we call it, that is, the syrup,

343 drains out and leaves the crystals behind, and those crystals are subsequently washed with a solution of pure sugar and they constitute the pure white loaf sugar, which is nearly one hundred per cent cane sugar. Now, the mother liquor or the syrup that drained away from those crystals is boiled down again and filtered through bone-black and again subjected to crystallization, when it produces a sugar not so white as the original, a sugar which is known in commerce as C Sugar and contains about eighty-seven per cent of sugar, 3.85 of glucose, and the rest foreign substances, and ash. That is a light colored sugar. Now, that is drained, the mother liquor or second syrup from that is again boiled and filtered over bone-black and crystalized a third time. That produces the third crop of sugar, which is yellow sugar; sticky, soft, yellow sugar, which contains nearly five per cent of glucose and the rest other substances and water. The molasses or syrup that drains away from that, which is the third molasses in the sugar house, is not capable of furnishing any more sugar in the form of crystals, so that is boiled and filtered over animal charcoal or bone-black and concentrated, and that constitutes refinery syrup. So the refinery syrup is the third molasses after three successive crops of sugar have been extracted, which is refined and put on the market, and put on the market as refiners' syrup. This is the information that I gained when I was chemist in the sugar refinery in New York, and the figures I gave are the figures of my own analysis which I made at that time.

Q. Do you know anything about the article in Johnson's Encyclopedia on sugar?

A. Yes, I wrote it.

Q. When was that?

A. I don't know exactly. I began to write those articles in 1873, and I forgot how long the work continued.

Q. Were they added to from time to time?

344 A. I looked at the article to see if I could ascertain the date and I could not. I introduced at the end of the article various authorities on sugar and I thought perhaps the dates of them would indicate, but from time to time I made changes and additions to this article as new editions of the book were published, and consequently those dates gave no real information. I found an article quoted there as late as 1885, but the article itself must have been written nearly ten years before that.

Q. Now, I will ask you whether this refiners' syrup may appropriately be called a cane-syrup?

A. Certainly, and it is the only cane-syrup I ever saw in all my experience, the sugar-house syrup, or the plantation molasses.

Q. Have you seen the standards contained in this Circular No. 19 as put out by the secretary of agriculture?

A. I have.

Q. Have you got a copy of it with you there?

A. I have.

Q. Will you refer to page 10 please, and under the head of "Syrups," the second paragraph is "Sugar-Cane Syrup is syrup made by the evaporation of the juice of the sugar-cane or by the solution of sugar-cane concrete, and contains not more than thirty per cent. of water and not more than two and five tenths per cent ash." And then you will notice in the second subdivision of the paragraph immediately preceding the paragraphs headed "Syrups" a definition of "Refiners' Syrup." What have you to say about this definition of sugar-cane syrup as distinguished from refiners' syrup?

A. I say in the first place I never saw or heard in all my experience as a sugar chemist of any such syrup.

Q. As what?

A. As the sugar-cane syrup described in that second paragraph under "Syrups." In the second place—let me see, how does the question read?

345 (Question read.)

A. In any case, it is no more cane-syrup than the refiners' syrup is cane-syrup. They are both made from the sugar-cane. They both derive all their constituents from the sugar-cane.

Q. Suppose you should stop at your first process that you mentioned a moment ago at which you obtain a syrup, would that be such a syrup as is referred to in that second paragraph under "Syrups"?

A. No, it would not, because the cane-syrup referred to in that second paragraph is stated to be either the concentrated juice from which no sugar has been extracted, or else it is made by dissolving sugar-cane concrete in water. Now sugar-cane concrete is a special product—

Q. How is that?

A. It is made, or was, I don't know that they make it just at present, but years ago it was made by evaporating the juice of the sugar-cane to dryness, in the same way that they evaporated the maple juice to maple sugar. It wasn't made by a process of crystallizing out, but was made by just boiling down the juice of the sugar-cane until it became solid. That was called "concrete."

Q. Did I understand you to say that refiners' syrup is just as much a cane-syrup as the one mentioned here in this bulletin as sugar-cane syrup?

A. Certainly, just as much; always understood as a cane-syrup.

Q. Has cane a flavor?

A. It has no flavor. I have eaten it myself and there is not any flavor about it. It is just sweet, plain sweet, like a lump of sugar.

Mr. OLIN: Is that meant to apply to molasses too?

A. The sugar-cane, the cane itself.

Q. Now, I will ask you if in the process of manufacture a flavor is imparted to the residual syrup?

A. Yes, there is a flavor imparted to it during the process
346 of manufacture.

Q. How is that imparted?

A. It is brought about partly by the action of heat and partly by chemical changes that take place in the material during the processes of evaporation, filtration, etc.

Q. Can you give us some idea how that might be brought about?

A. Every one knows that if sugar is exposed to heat it acquires a yellowish brown color and produces what we call caramel. That is a substance which is made in the kitchen and used for sauces on puddings and such things; we caramelize sugar or burn sugar. Then there are various nitrogenous substances in cane-juice and raw sugar, and no one can tell exactly how they react upon each other or upon the sugar to bring about the development of this flavor. But the flavor is developed in the process of concentrating and preparing the solutions which ultimately yield and produce the syrup.

Q. Is that flavor in any sense of the word imparted by the bone-black?

A. The bone-black is only a purifying agent. The bone-black never adds anything to the solution, but it takes things out of the sugar solution. It is used as an agent for extracting. Not only coloring matter, but gummy substances, nitrogenous substances and mechanical salts, such as sulphate of lime, are extracted by the bone-black.

Q. What is this bone-black?

A. Why, it is nothing but charcoal made from bone. It contains nothing that it could possibly impart to a sugar solution, except the first time it is used there is a little salt in it, very little indeed, but a trace of common salt which would dissolve in the first lot of sugar or water; it might be washed out before the bone-black was used on the
sugar solutions at all.

347 Q. Now, as this bone-black is used from one batch to another in the making of the sugar, is it cleansed and re-prepared?

A. Oh, yes, it is very carefully washed with water, often washed with dilute hydrochloric acid and then washed again, and some times it is subjected to fermentation in order to free it from the various impurities which it extracted from the solution; finally it is dried and put into kilns and heated red hot, so that if any impurities from the sugar are not extracted in washing, they would be destroyed by the heat.

Q. Now, would the "cane-syrup" referred to in the second subdivision of the paragraph "Syrups" on page 10 and "Refiners' Syrup" have the same flavor?

A. Substantially the same, the only difference being that the cane-syrup would have had only one evaporation, while the refiners' syrup would have had three or four.

Q. Now, can you illustrate that in any way so as to give us a more definite idea of what you mean?

A. Well, I mean this, that syrup made directly from the cane by boiling down the juice would only have an amount of flavor due to the boiling down and the development of the flavor corresponding to the amount of sugar that's in it, corresponding to the amount of sugar that is actually in it; but the refiners' syrup, being the third mother liquor in the refinery, would contain the flavor corresponding to all the sugar that had been taken out, for instance, say sixty-five per cent of the sugar in the sugar-cane had been sent to the market as pure white loaf sugar, all the flavor that was associated with that sugar remains behind in the syrup; then they take out the second crop of sugar, and a great deal of the flavor corresponding to that amount of sugar also remains in the syrup, and so on, and so the flavor is concentrated in the refinery syrup. That is the
348 reason why the refinery syrup has so much more flavor than plain cane-syrup could have made by simply concentrating the juice of the sugar cane.

Q. The same flavor but a stronger one?

A. The same flavor but a stronger one.

Q. Concentrated?

A. Concentrated.

Q. Now, does the sugar itself have this cane flavor?

A. None at all. After the sugar is purified no one can tell the difference between maple sugar or sugar made from the sugar-cane or from the sugar beet. When it is absolutely pure there is no distinguishing one from the other.

Q. Now, in the manufacture of glucose they use this same process, do they, the bone-black process?

A. They do. They give the glucose a thorough filtration through bone-black filters. They even give it a more thorough filtration than they would the sugar solution of the sugar refinery, because it has to be made absolutely colorless. It is pure white to a higher degree than the syrup of the sugar house; every trace of color is taken out of it. They even put it through three successive bone-black filters in order to complete this operation, and this not only takes out the color, but it takes out almost any other impurity that could get in it; it would take out the sulphate of lime should there be any there, and it would remove any acid that might be there. The glucose which has been through bone-black can not contain any free acid, because the bone-black itself would absorb any free acid that might be present.

Q. Now, what do you say in regard to the flavor of glucose and the taste, of the idea that a flavor could be imparted by the bone-black?

A. Why, if bone-black could give flavor to a sugar solution, the glucose ought to have more flavor than the refinery syrup.

Q. Well, do you find any flavor in it?

349 A. Why, it has no flavor and it has no color, while the refiners' syrup is dark colored and highly flavored.

Mr. OLIN: May I ask, doctor, in all this testimony recently -here you have been using the term glucose, whether you mean by that term to cover commercial glucose?

A. Commercial glucose.

Mr. OLIN: And that, you say, has no color, no flavor?

A. Well, substantially. I don't mean to say that you don't know that you have got something in your mouth when you put the glucose into your mouth, but no substantial flavor, and no substantial color when it is fresh. Of course it does acquire color. If it is kept long enough it gradually acquires a little color. It wouldn't acquire it if the manufacturer was allowed to leave a little sulphite in it, but that is not permitted any more and consequently the glucose gets a little off color in time—in fact almost everything does.

Q. While we are on this subject I will call your attention to the definition of syrup on page 10 of this bulletin number 19 and ask you what you have to say in regard to the propriety of that definition of syrup?

A. It's a new departure in the English language. That was never known as a definition of syrup until it was put forth by Dr. Wiley at Washington and put into this bulletin of standards, and it does not correspond to the English language or to custom or commercial usage for a hundred years, in the English language or the French language or the German language.

Q. Do you read the French and German language?

A. I read them freely. My library is made up of French and German more perhaps than it is of English books.

Q. So you are familiar with the literature on that subject?

A. I am, and as a sugar chemist I have made a special study of everything relating to sugar.

350 Q. Well, now why would you say that was not a proper nomenclature or definition of syrup?

A. Because it throws out almost everything that was called a syrup and only includes—well, practically the only syrup there is that it would include would be maple syrup. That's a definition to include maple syrup. I don't think for the moment of any other syrup that would comply with that definition of syrup.

Q. Would it include sorghum?

A. Oh, sorghum, yes. I forgot sorghum. Sorghum and maple syrup would comply with it, and if there were any syrup made from corn stalks that would comply with it; but of course there is none, never has been commercially? Some abandoned experiments were made in that connection thirty or forty or fifty years ago. So that maple syrup and sorghum syrup are the only syrups that would comply with that designation.

Q. Now, what have you to say in regard to what is said in the second subdivision of the preceding paragraph in regard to refiners' syrup, as to the consistency between the definition of syrup in the following paragraph and the definition of refiners' syrup?

A. The definition of refiners' syrup is incompatible with the definition of syrups.

Q. Why?

A. Why, because it just says the opposite. The definition of syrup says, "without removing any of the sugar", whereas refiners' syrup is defined as "the residual liquor from the raw sugar after the removal of most of the sugar". It makes two separate and distinct definitions for syrup. One syrup has had no sugar removed from it, and the other syrup has had nearly all of the sugar removed from it. Of course there are some qualifying words in the paragraph. Under "Refiners' Syrup" it is described as "the residual liquid product obtained in the process of refining raw sugars." But
 351 the word "syrup" comes in, the word "syrup" is applied in both cases giving two different and distinct meanings to the word "syrup", independent of the process by which it is made. In the one case the syrup contained all of the sugar there was in the natural juice and the impurities, the foreign substances, would be in minimum quantity and the flavor in minimum quantity. In the other case the syrup contains a minimum of the original sugar and a largely exaggerated percentage of the soluble constituents of the original juice.

Q. I call your attention now to the fifth subdivision of paragraph headed "Syrups" and ask you if that definition "sugar syrup" is compatible with the definition of "syrup" in the first subdivision in the paragraph?

A. No, that is different again. That makes a third liquid quite different from either of the others which is denominated syrup, and all three of those syrups are made from sugar-cane, generally; of course that last one, number 5, might be made from beet sugar.

Court: What is that?

A. Sugar syrup, made by dissolving pure sugar in pure water. It is a sugar that is used in medicine.

Mr. OLIN: Contains not more than 35 per cent water?

A. Yes, contains not more than 35 per cent water.

Q. Is corn syrup so called any less wholesome than maple and cane syrup?

A. Not at all. It is just as wholesome as cane syrup, just as nutritious, just as wholesome.

Q. Just as nutritious you say?

A. Just as nutritious, just as wholesome, just as digestible, in fact, if anything, more so, because it is to a certain extent predigested and cane-sugar before it can be absorbed in the system has to be converted into glucose. The process of digestion converts the sugar of the cane or the sugar of the beet into glucose; and the same way with the starch we eat, it has to be converted into glucose before it can be absorbed into the system".

352 Q. Is there any particular food value and if so, in what respect has it value in dextrin?

A. Dextrin has the same food value that maltose, glucose, cane-sugar and starch possess. They all of them belong to the class of carbohydrates and they all have the same food value, practically.

One is as good as the other as far as its composition as food is concerned.

Q. Does it furnish any particular thing?

A. It furnishes heat and energy and fat. Of course none of these substances contain nitrogen and consequently none of them can be employed in the animal economy for producing muscle or nerves or brain. They are fat producers and heat producers and energy producers.

Q. Is refiners' syrup a waste product?

A. No.

Q. What do you say in regard to its food value?

A. It has a food value in proportion to the amount of sugar it contains—sugar and glucose.

Q. As glucose is manufactured in this country now, does it contain any deleterious substances or poisons or anything of that nature that would be harmful?

A. It does not.

Q. It has been referred to here that arsenic has been found in beer produced from glucose. What do you know about that?

A. I know about all there is to know about it. I have all the publications of the English government on the investigation, preliminary reports and evidence taken, etc. It seems that by an accident a sulphuric acid manufacturer, I don't know, there may have been two, I have forgotten whether there was one or two manufacturers, received a supply of iron pyrites from a different mine or a different part of the mine than usual, and never dreaming
353 ing that it contained arsenic never having been troubled with the presence of arsenic before, they used it in their regular course of business and they manufactured some sulphuric acid which contained arsenic, and some of that sulphuric acid was sold to one or two glucose makers and they, never dreaming of the presence of any appreciable quantity of arsenic, used it in their business, and the glucose contained a little arsenic and that was used in making beer and it did considerable harm.

Q. Is that the only case you know of?

A. That is the only case I ever heard of. But some curious things developed in the investigation. They found that the barley hop and the malt contained arsenic, that hadn't any sulphuric acid or glucose attached to them. They afterwards found out there was a little arsenic in coal—

Mr. OLIN: Well, we don't pretend that there may not be arsenic in other articles.

Recess until 2 P. M. January 1, 1909.

JANUARY 1, 1909.

Direct examination of Professor CHANDLER resumed by Mr. FAIRCHILD:

Q. I will ask you when bone-black is used in the manufacture of glucose is there any ash in it?

A. Bone-ash.

Q. Yes.

A. Well, bone-black is not bone-ash.

Q. Well, that is what I am asking you.

A. They never use bone-ash in refining sugar, or refining glucose. They use bone-black. That is another thing altogether.

MR. OLIN: We don't claim that bone-ash is used. We claim that by the use of bone-black the ash is very largely increased as a result in the refiners' syrup.

A. That isn't true.

354 Q. I will ask you if there is anything unwholesome or impure in the refiners' syrup?

A. Nothing whatever.

Q. Why do you say that?

A. Because I know it from having worked in a sugar refinery for years and analyzed any number of samples of syrups.

Q. What reason can you give for their being no impurities in it?

A. Why, the raw sugar to begin with has no impurities in it that are not taken out during the process of refining, and the agents employed in refining the sugar don't add to it any impurities.

Q. What percentage of sugar is there in refiners' syrup?

A. Of course it is variable, but this analysis I selected as an average analysis of refiners' syrup when I wrote my article on sugar.

Q. The one you made yourself?

A. It is the result of comparing a great many analyses. The amount of cane sugar was 34 per cent; the amount of glucose was 28 per cent; organic matter 8; mineral substances 2; water 28; adding up a hundred.

Q. It was suggested that all the nutritive qualities of the corn are not in the corn syrup or glucose. I ask you if corn syrup contains all the nutrition that may be contained in a syrup made from corn?

MR. OLIN: I object to that as getting nowhere and not meeting any issue in the case. We are not claiming that they hadn't put into this product nutritive elements that would be in the glucose as made from the corn.

COURT: Read the question.

(Question read.)

A. It does.

COURT: The answer may stand.

355 Q. Is the same true of any syrup that is made from any material out of which it could be made—does it contain all the nutrition that is in the article from which it is taken?

A. It does, unless in the process of purification some constituents which might serve as food are removed in order to improve the taste or quality of the product. For example, there are nitrogenous substances in raw sugar which might be regarded as nutritious if eaten, but they give the sugar an unattractive appearance and to a certain extent an unattractive taste, and in order to fit the sugar for market, make it acceptable to the public as an article of food, it is customary to purify it. We have this state of things in a great many articles of food, as, for instance, bread. Bread does not con-

tain all the nutritive matter of the wheat by any means. Intentionally, to satisfy the demands of the public, the consumer, the coarser constituents of the wheat, which are really nutritious and might support life without any other article of food, are eliminated, simply to give the food a more attractive and more digestible condition.

Q. Are you acquainted, doctor, with Thorpe's Dictionary of Applied Chemistry?

A. I am.

Q. Is that a standard work on chemistry?

A. It is. I often consult it.

Q. Are you acquainted with Watt's Dictionary of Chemistry?

A. I am.

Q. Is that a standard work?

A. It is. I often consult that.

Q. The New International Encyclopedia of 1903, are you acquainted with that?

356 A. I have seen it several times.

Q. Do you know whether that is a standard work or recognized as a standard work?

A. It is.

Q. Are you acquainted with the Universal Encyclopedia of 1900?

A. I have seen it occasionally.

Q. Do you know whether that is recognized as a standard work?

A. It is.

Q. Johnson's Revised Universal Encyclopedia, are you acquainted with that?

A. I am.

Q. Is that recognized as a standard work?

A. It is.

Cross-examination by Mr. OLIN:

Q. Doctor, you have referred to some opinions that were submitted to the secretary of agriculture, a copy of which you have produced and referred to a number of letters here. Did you have anything to do with gathering the opinions?

A. I did.

Q. Did you write to various persons and submit to them a form of letter which the Corn Products Company had either prepared or you had prepared for them and then asked them to give their opinion?

A. I wrote my own letters to those gentlemen. Not always the same letter to each. Several of the gentlemen I saw personally.

Q. And these opinions were obtained in answer to your letters?

A. Some of them.

Q. Most of them?

A. Most of them.

Q. Could you name those that were not obtained in answer to your letters?

A. The letters from Harvard University were obtained by my associate, Professor Bogert. There was so little time—

357 Q. Well, I don't care about unnecessary detail, any explaining. Any others that were not obtained in answer to your own personal letters?

A. It is rather hard for me to tell now.

Q. Well, I don't care, if they were substantially all in answer to yours other than you have stated, that will answer my purpose?

A. I think they were, substantially. There were two or three there which were obtained indirectly, not directly.

Q. You were employed by the Corn Products Company I presume for that work?

A. Corn Products Refining Company.

Q. Could you tell us about the date of your employment?

A. Well, I can't exactly. I was engaged in studying the subject for five or six months, if I remember right, when the subject was first brought to my attention?

Q. Under their employment?

A. Yes, they asked me to. They asked me to look into it for them.

Q. That extended over the hearing at Washington before the secretaries?

A. Yes. Began some time before that.

Q. And that employment ceased how long after that? That hearing commenced, according to the records so far, December 5, 1907.

A. Well, I didn't remember. In one sense it didn't cease, because it was soon after that that I heard that this suit was to be brought in Wisconsin, and I was given to understand that my presence was desired, so that I have had the subject on my mind ever since it was first brought to my attention.

Q. Would I understand from that that your employment has continued substantially from the time you were first employed up to the present time?

A. One might say yes and might say no to that. I have 358 no regular employment.

Q. I don't mean that it takes all your time, doctor.

A. No, I wasn't thinking of that, but I am not under salary.

Q. Well, I didn't mean that of course. That is, you distinguish from a salary and compensation in other ways?

A. I do. A salary is a continuous, regular payment for services. My custom is to charge for services when I have rendered them.

Q. A good many books have been referred to here dealing with this subject of glucose, and some I think you have referred to, using the term corn syrup. Now, doctor, it is true, isn't it, that any standard work dealing with the subject of glucose would be apt somewhere in the book to state all of the names under which it might be sold?

A. No, I don't think it is, for the reason that the persons who write books oft-n have little to do with buying and selling and they don't know all the names under which articles are sold in a great country.

Q. I am speaking of such works as those prepared by Mr. Leach and by Mr. Allen that have been referred to, Mr. Blyth, Mr. Kenney, and such works as that.

A. Those Englishmen wouldn't be likely to know the names that things are sold under in America.

Q. They would know the names that things were sold under in England, would they not?

A. Well, I don't think corn syrup finds a sale in England. They don't make it in England.

Q. It is certainly not known in that country under that name any way, is it?

A. I don't remember. It is possible that some of those English books may have the name corn syrup in them.

Q. Don't you regard Mr. Leach as a standard work?

359 A. Well, Mr. Leach has written one of the last books on analyzing food. I suppose he is entitled to have his book called a standard work.

Q. Do you regard Alfred H. Allen's as a standard work?

A. Yes, Alfred H. Allen is one of the most prominent persons in that branch of chemistry—commercial analysis.

Q. You regard him then as high authority?

A. High authority. As an Englishman of course, and he writes in England.

Q. There is also an American edition, isn't there?

A. Well, they call it an American edition, but it was written in England and it is an English book. They have a way now of putting out books both in America and England and saying they are published in both countries, which is true in that sense, but when a book is written in England by an Englishman it is an English book and not an American book.

Q. Do you know Henry Leffmann or of him?

A. I have heard of him. He lives in Philadelphia.

Q. Professor of Chemistry and Metallurgy in the Wagner Free Institute in Philadelphia?

A. I have heard of him.

Q. Do you know that this book you have spoken of so highly of Mr. Allen's is, according to the title page, here stated to be the "Third edition, illustrated, with revisions and addenda by the author and Henry Leffmann, A. M. M. D. etc."

A. Yes, the Philadelphia publisher gets some local person to put his name on the title page, that is all it amounts to.

Q. I didn't ask you that, doctor, but do you wish to have the impression left here that Henry Leffmann is a man who would permit his name to be used in that way?

A. Oh, that is very common. Sir William Ramsey—

360 Q. Do you know anything about this as a matter of fact, this case?

A. No.

Q. Then I think perhaps we had better omit it.

A. Except that I believe the American edition is substantially identical with the English edition.

Q. Will you turn to this compendium of opinions which you have, to page 16 of the compendium, being a part of the brief or argument prepared by yourself and already introduced in evidence.

Now you are here, seeking, are you not, to state in chronological order the different authors and writers who have recognized the term corn syrup or other names under which this article is sold?

A. Not all of them. A few that I happened to run across.

Q. My question is, so far as you were representing them at all or stating them it is for that purpose?

A. It is.

Q. And that you gave all of them?

A. It is for that purpose.

Q. Now, as to this author your statement is, isn't it: "Alfred H. Allen, Commercial Organic Analysis London & Philadelphia. Speaking of glucose says the term is restricted to syrup preparations. States that the following grades are recognized: 'glucose, mixing glucose, mixing syrup, corn syrup'." You state that, don't you?

A. I do.

Q. That is the only thing that you state from that author on the subject, isn't it?

A. It is.

Q. Now that author states, does he not, on page 359, this: "Starch glucose occurs in commerce in several forms, varying from the condition of pure anhydrous dextrose through inferior kinds of solid sugar, to the condition of a thick, syrupy liquid resembling glycerin, which contains a large proportion of dextrin".

361 A. Yes, that's there.

Q. Now, further on the page and in a footnote in fine print it says, does it not—just read it.

A. "In America the term glucose is restricted to the syrup preparations. The solid products being distinguished as grape-sugar. The following grades are recognized: Liquid varieties; glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, and confectioners' crystal glucose."

Q. Now, that statement there is in effect, is it not, a copy of the statement contained in the so-called academy report on page 73? If you will turn to your copy of that report, as I will have to refer to that again. It is really a copy from that, isn't it?

A. I don't know that it is. It may have the same names, but I don't know that he got them from this. He may have got them from the same source we did.

Q. This book, last edition, is of what date, do you know? Here, 1905. Do you know whether or not that is the only place in this entire work where the author refers to this product under the name of "corn syrup".

A. I do not, but the most part of his work is devoted to entirely different subjects, all sorts of things.

Q. It also, does it not, considers quite exhaustively glucose and the various forms in which it is manufactured?

A. He says something about them, but that is a book on methods of analysis. It is chiefly devoted to methods of analysis.

Q. On page 312 this author states: "Starch glucose is very extensively employed in the manufacture of confectionery, but its use

seems wholly unobjectionable unless its nature be misrepresented". He is there dealing, is he not, with the commercial product?

A. He is.

Q. And you are quite familiar, are you not, with this work?

A. Well, it's a book I have on my book-shelf and I consult
362 it whenever — think I can get information from it.

Q. Now, isn't it your recollection, doctor, that that is the only place in his work where he mentions this terminology?

A. I think very likely it is the only place where he undertakes to give commercial names for glucose. He wouldn't repeat it on every page.

Q. Do you wish to say that that is the only place where he speaks of commercial glucose?

A. I don't mean to say that that is the only place where he speaks of commercial glucose, but I say it is probably the only place he felt it necessary to put in the different names employed in commerce for liquid glucose. It would be unnecessary repetition to put it in again and again.

Q. You don't mean to say that this author himself uses that or that he thinks that that is a proper term for this product?

A. No, I don't think he says so. He says it is one of the names by which it is known in commerce.

Q. Speaking of it as one of the names in America, in this footnote.

A. Yes.

Q. Right below this on the same page you have this statement, have you not, page 16 of these opinions, under date of 1899: "U. S. Dispensatory, page 1175, Speaks of solutions of glucose as syrup". You have that, haven't you?

A. That's there.

Q. I hand you that dispensatory of that year and on that page and will ask you if you will be so kind as to read from it the portion I have included in lead pencil brackets on that page.

A. "According to the statements of Professor H. W. Wiley (N. P. September 1881) the daily consumption of corn for sugar and syrup making was at that date not far from 35,000 bushels, but since
363 that time it has greatly decreased. The term glucose is applied to the syrup, and this appears "while the grape-sugar is limited to the solid substance from the same source."

Q. Was the last part of it there a quotation from Wiley?

A. It don't appear to be. There is a period. It really isn't quite clear how much of it was quoted from Wiley. It may or may not have been quoted from Wiley.

Q. You have made a very extensive study I understand, doctor, of this study of glucose and its manufacture in this country as well as abroad?

A. Well, my study of the manufacture abroad consists simply in what I have observed in books and one visit to a glucose factory in Paris in 1869.

Q. Well, I had more reference of course to this country, and theoretically more to abroad. Are you familiar with a publication

entitled "Statistics of the Glucose Industry in this Country", gotten out by the Glucose Sugar Refining Company of Chicago, Illinois in April, 1898?

A. I never saw it and I never heard of it.

Q. You didn't know that there were two letters in the book quoted as coming from you?

A. No, I did not. I can't imagine what letters I ever wrote that could be quoted.

Q. Oh, I forgot one thing, doctor. When you sent out these letters to the different eminent chemists in this country for their opinions, did you send a letter to Dr. Ira Remsen of Johns Hopkins?

A. I did.

Q. You didn't get any reply, did you?

A. No. He thought it was bad policy for the president of the university to interest himself in such subjects.

Q. He is regarded, is he not, as one of the most eminent chemists in the country?

A. He is.

364 Q. And was on this same committee with you in 1883 and 1884?

A. He was.

Q. And that report was a unanimous report?

A. It was.

Q. He is the author, is he not, of several books?

A. He is.

Q. In his chosen field of work?

A. He is.

Q. This is a book that may be referred to later or several times before we get through, but I refer you now, doctor, to page 70, which purports to contain a copy of a letter from you.

A. I don't remember of writing the article, but my sentiments are the same now that they purport to have been on November 30, 1894.

Q. You haven't any doubt but what the letter was written by you I suppose?

A. No, I think it probably correct.

Q. I now show you another letter at a later date, April 11, 1898, purporting to have been written to Thomas Gaunt, Esq., General Manager of Glucose Sugar Refining Company of Chicago, Illinois.

A. That's a letter I am proud of.

Q. Well, you wrote it, didn't you?

A. I think I did. It sounds like me.

Q. And you wrote it in answer to a request from this company for your opinion?

A. I don't remember the circumstances. There must have been some reason for writing it.

Q. You have no objection to my reading these two letters I suppose?

A. Not at all.

Q. The first one reads:

"SCHOOL OF MINES, COLUMBIA COLLEGE,
NEW YORK, November 30, 1894.

365 I fully concur with Dr. Dawson in the opinion above expressed in regard to the healthfulness of glucose, and I want to say further that since 1882 when I carefully investigated the subject as a member of the committee of the National Academy of Sciences, appointed at the request of the United States commissioner of internal revenue, I have not been able to learn anything which would lead me to modify the opinion we then expressed in that report with regard to the healthfulness and value as an article of food of glucose".

Q. That is your opinion now?

A. It is.

Q. You didn't say anything about "corn syrup," did you?

A. No. I presume if I was written to for an opinion the word "glucose" was probably used in the letter and I used the same word in replying.

Q. Will you glance at Dr. Dodson's letter.

A. Edson is the name.

Q. Edson, yes.

A. He was president of the health department at one time.

Q. Just glance at his letter, pages 47 and 48, and not to take too much time, just enough to satisfy yourself whether he wasn't dealing with the commercial glucose as well as with the starch-sugar so-called.

A. But these letters are in answer to some inquiry.

Q. Certainly.

A. And I presume the word glucose was used in the letter of inquiry, so in answering it we used the same word the person write in inquiry.

Q. You have no other explanation to make of it?

A. No.

366 Q. Then I will read the next one, under date of April 11, 1898:

Thomas Gaunt, Esq., General Manager Glucose Sugar Refining Company, Chicago, Ill.

CHICAGO, ILL.

DEAR SIR: In reply to your favor asking me if I have seen any reason to change the opinion which I expressed a good many years ago as a member of the special committee of the National Academy of Sciences, appointed at the request of the treasury department to investigate the subject of glucose or grape-sugar, I would say that although I have kept myself informed upon this subject, nothing has occurred and no facts, chemical, physiological or sanitary have been published which in any way indicates that the opinion arrived at by our committee was not absolutely correct. You will remember that our committee carefully investigated this subject, examined the different factories where glucose or grape-sugar is manufactured, studied carefully all the processes in it, saw made analyses of all the products, and made experiments upon the use of the pro-

ducts in different ways, and we could not find the slightest reason for supposing that under any circumstances grape-sugar or glucose is in any way objectionable as an article of human food. I would say further that the same statement applies to starch whether made from corn or made from wheat. The old story alleging that grape-sugar or glucose is unwholesome because deadly acids are employed in its preparation is simply ridiculous. I have never known of any reputable chemist finding any such acid in either grapesugar or glucose. In conclusion I will say that there are no articles of food to be found in commerce less liable to suspicion than the glucose or grape-sugar sold in the United States.

Very truly yours,

Q. You refer *bas* here I see again to the investigation by this committee of the Academy of Sciences, doctor, and say nothing has occurred to change your opinion. That's right, isn't it?

367 A. That's right.

Q. And that report dealt with both the liquid article and the solid article?

A. It did.

Q. And you cover here both in your letter and intended to?

A. And intended to.

Q. Now, there was no mention in it at all, in 1898, of the term corn syrup?

A. No, I didn't undertake to give a catalog of the names by which it is known.

Q. I didn't ask you that. Now, to refresh your recollection after reading this second letter, don't you recall that there was a movement on foot, stirred up by somebody down at Washington that had made an attack on the glucose industry of this country as being used as an adulterant, and that there was a movement before congress to have a tax imposed on the manufacture of glucose so as to control it and bring it under the national law, the same as oleomargarine and that this pamphlet was gotten up by the glucose manufacturers of the country as against that bill?

A. I didn't know anything about it whatever, except that I received letters and answered them. I never heard of that movement.

Q. Isn't it a fact that all through the report of this National Academy of Sciences the liquid form of the starch or sugar is constantly called glucose and the solid form grape-sugar?

A. Those terms are used.

Q. Are they not the only terms used in the entire report except on that page 73 that I have already called your attention to and will come back to later?

A. Well, I should have to look through the book to find out whether that is true. I will say in that connection, if you will permit me, that the chemist in speaking of the whole
368 subject often uses the word glucose as a collective word, because to the chemist the solid product is just as much glucose as the liquid product. The distinction between glucose and grape-sugar and these other names are commercial distinctions, and when

a chemist speaks of a subject of this kind he generally uses the terms which are familiar to chemical literature and not technical commercial literature.

Q. Do I understand then from your remark that the terms are more technical in commercial literature than in chemical literature?

A. Yes. The commercial names of all food products are more familiar to commercial literature than they are to scientific literature.

Q. Well, to save time, doctor, I want to hurry along all I can in justice to the importance of this case, I wish you would be so kind as to look through this report again before you leave and, if you can, point out any other place where that term "corn syrup" is used in that report excepting on page 73 and perhaps on page 81, which I will call your attention to later, where the term "maize syrup" is used, I wish you would please do so.

A. I think I can answer that. I doubt if the word corn syrup is used anywhere else. The letter requesting us to investigate this subject called for an investigation of "glucose" and naturally we used the word glucose in writing our report, as that was the word employed by the party requesting the report.

Q. Is that your explanation? Will you turn to the letter that called upon you for that investigation?

A. That's my recollection.

Q. Well, the record is the best I think. On page 66, and I will read a part of the letter from Green B. Raum, the first paragraph, to the treasury department: Sir. There is now pending before congress a bill H. R. 3170 'to tax and regulate the manufacture and sale of glucose,' which bill proposes to amend the internal revenue laws as to impose a special tax upon the manufacture of and dealers in glucose and to levy a tax on the article in its solid, liquid and semi-liquid form."

A. Well, glucose is the word used there.

Q. Yes, I know, but it also specifies "in its solid, liquid and semi-liquid form," doesn't it?

A. Yes, but it says that glucose is a name for all three of them.

Q. Now, did you, as expert scientist call attention in that report any where that that was not the proper term to be used, in your discussions?

A. I have already called attention to that, and you mentioned this term corn syrup in just that one place?

A. Yes.

Q. And in doing that the only object you had in view was to state to the public that you had found the article manufactured or claimed to be manufactured by one person who called it corn syrup?

A. Oh, no, there was nothing about any one person. We found it was one of the regular commercial names for liquid glucose.

Q. Let us pass that for the present, doctor, for I want to come back to it; perhaps there is a little misunderstanding there. You claim that this report of the Academy of Science recognizes or was intended to recognize "corn syrup" as a proper designation of this article glucose?

A. I do.

Q. Then will you turn to page 76 of this same report, where you are speaking of the uses of starch sugar you say: "Third, as a substitute for cane sugar in confectionery; and fourth, for the adulteration of cane sugar, to which it is added to the extent of twenty or more per cent." You didn't wish, did you, in making that statement, to have it understood that you sanctioned the use of the article for adulteration purposes in that way, did you?

370 A. The paragraph is headed "Uses of Starch Sugar," and it is further stated that it finds extensive application for a great variety of purposes as substitutes for cane sugar—

Q. Please answer the question.

(Question read.)

A. I did not.

Q. You are simply stating the history of what you found.

A. The fact.

Q. Now, doctor, you have gone on pages 13 to 17 inclusive of the pamphlet already introduced in evidence what may be called a bibliography of works on the use of the term corn syrup or other names to designate this article, haven't you?

A. That bibliography was for the purpose of showing the continuous use of the term "syrup" to designate solutions of sugar from starch.

Q. Now, I want to put this question to you, is there in this entire bibliography a single work that you find mentioning on the title page anything which indicates that the book or its contents treats of the subject of "corn syrup?"

A. Without carefully looking at every one, I find three authorities at once who speak of "grain syrup made from grain." Whether that grain was corn or not I can't quite tell.

Q. Will you please read the question to the doctor?

(Question read.)

Q. That is, as indicating, or do they use the term "corn syrup" as indicating the contents or subject of the book or work?

A. Well, here is Payne's Chemistry, 1855, he constantly speaks of glucose in solution or liquid form as "sirup" and he gives the name "sirup of starch" and "sirup of grain." Now, whether that grain was what we call corn or not I can't say.

Q. Well, do you understand that exactly as my question calls for?

A. You asked me if I found corn and I am giving you the
371 nearest answer to that that I can.

Q. Now, there are various works, are there not, in this country and foreign countries on the subject of glucose?

A. There are a few books that are devoted exclusively to "glucose."

Q. Do you know of any book that is devoted to "corn syrup?"

A. No, I never saw a book that is devoted exclusively to "corn syrup."

Q. Wherever the word grain is used in this bibliography, it is in some French word?

A. It is.

Q. You don't find any such thing either in any English works on the subject or in any German works?

A. I think I have Allen in here. Why, yes, there is Thorpe's Dictionary, 1905, uses the name "corn sugar." It doesn't say "corn syrup." There is Leffmann's book, 1905, which says, "Glucose is often termed 'corn sugar.'"

Q. Where is that?

A. That's on the top of page 17.

Q. You have read that in Leffmann, haven't you?

A. I have.

Q. You don't mean that Leffmann himself pretends that that is a proper term to designate glucose?

A. I didn't discuss the question of propriety. This was a list of books in which we found the term "syrup" applied to "glucose."

Q. That is not in the title of the book, is it?

A. No. It is a general book on various subjects.

Q. Wasn't your purpose here, doctor, in this collection and in those quotations to indicate to the secretaries at Washington that these authors were in favor of designating this product as "corn syrup?"

A. Nothing of the sort. The object was to show the extent to which the use of the word syrup has prevailed in the last
372 hundred years for "glucose."

Q. Did you think it would show the extent to which it was used by simply quoting that from a leading author and not indicating at all what the author's book as a whole said upon that subject, as to whether it was a proper term or not to use?

A. Nothing was said about its being a proper term. It was a definition of the word syrup which it was attempted to limit to solutions of cane sugar, and this list of authorities was to show that the word "syrup" had been applied to solutions of glucose ever since glucose was discovered a hundred years ago.

Q. Now, the work is Food Analysis by Leffman & Beam.

A. I suppose so. My title is "Select Methods in Food Analysis."

Q. Now, I hand you the book, page 125, and I will ask you to read that paragraph marked, then I want to base a question on it.

A. The paragraph is headed "Glucose." "Commercial glucose consists principally of dextrose with considerable maltose and gallsin and some dextrin. In trade the term "glucose" is restricted to the syrup; the solid is called "grape-sugar." Inferior qualities of glucose may contain sulphurous or sulphuric acid, calcium sulphate, arsenic and lead. Glucose is often termed "corn syrup."

Q. Now, I will ask you to state whether that isn't the only place in that entire work where that term "corn syrup" is used?

A. I can't say.

Q. Have you looked through the book to examine?

A. I have never looked the book through.

Q. Would you consider the term "evaporated cream" as a proper term to use to designate condensed milk?

A. No I should not.

Q. It was for a great many years, wasn't it, by manufacturers quite largely used?

A. Not to my knowledge.

373 Q. By some of them, claiming it was their trademark?

A. Not to my knowledge.

Q. I show you again page 222 of Leffman & Beam and ask you to just glance at it and see whether he doesn't so state.

A. Under the head of "Condensed Milk" he says: "The form of condensed milk called evaporated cream, consists merely of whole milk concentrated to about two-fifths of its bulk.

Q. That I believe you say is a leading work?

A. I never said so. I consider this man a crank.

Q. You don't regard Leach as a crank, do you?

A. I don't know much about Leach.

Q. But you wouldn't want to call him a crank?

A. No, because I don't know enough about him to know whether he is or is not a crank.

Q. Although his work today is regarded as the leading authority on food analysis in this country, or one of the leading authorities?

A. Some people may think so.

Q. I infer from that that you do not. Are you acquainted with Julius Frankel's works?

A. I don't remember him.

Q. Isn't he a leading authority?

A. I think I have that work.

Q. He has a book on "A Practical Treatise on Manufacture of Starch Glucose, Starch Sugar, and Dextrin" hasn't he?

A. I think I have that book. I wouldn't be sure.

Q. That doesn't speak of corn syrup?

A. Probably not. It is a German book.

Q. Well, you said, I believe, that generally speaking in Germany the term applied to this product was "potato syrup."

A. Frequently applied.

Q. Didn't you say the most frequently applied?

374 A. I don't remember my exact language, but I found a great many authors who used the term "Kartoffel sirupe" which is "potato syrup."

Q. You may glance through pages 13 to 17, if you don't already know and state whether or not it isn't a fact, excepting a few of the earlier books, that the term almost invariably used in German works is "starch syrup?" I concede from your statement that the term "potato syrup" is used a few times, but aside from those few exceptions, just to shorten the thing a little, it is already in, take the last page, doctor, the later work there, Von Raumor, H. Luerig, Matthes & Mueller, Richard Meyer, Varges, Ost.

A. Well, it happens that those on the last page, with the exception of the last one, don't mention potatoes.

Q. Call it starch syrup, don't they?

A. Call it starch syrup.

Q. And Koenig is a leading author, isn't he?

A. Koenig has compiled several editions of analysis of food which

he has picked up all over creation, put them into a volume, a sort of a dictionary of analysis.

Q. And you quote him, on page 16 as giving this term "starch syrup, don't you?

A. Yes, he is one of those who mentions it under the name of starch syrup.

Q. And at the bottom of that other page is "starch syrup" from Professor von Lippmann?

A. Yes, says "starch syrup."

Q. Isn't that probably the best book on the subject of sugar?

A. Well, that is a very good book. There are a great many others.

Q. Right above that you have Albert E. Leach. Lesh you have. It should be Leach?

A. Yes.

375 Q. Chemist of the state board of health of Massachusetts, "Food Inspection and Analysis." He speaks, does he not, of "starch or corn syrup"?

A. He does.

Q. And in the one place that has been referred to I think by Professor Fischer, you called one man a crank, there is Mr. Leach, you will see on page 146 he speaks of "evaporated cream" doesn't he?

A. I don't catch sight of the expression "evaporated cream" here.

Q. On the other page I think.

A. Yes, the term "evaporated cream" appears there.

Q. Now, you speak of Dr. Frankel as being a German author. There is also an edition of his work edited by Robert Hutter, is there not, chemist and practical manufacturer of starch sugar, proprietor of the Philadelphia Starch Sugar Works, that I hand you?

A. I have seen it before.

Q. He doesn't use the term "corn syrup" does he?

A. I don't know. I never have examined the book to ascertain. It is labeled on the back as written by Frankel & Hutter. It was really written by a man named Wagner originally.

Q. I hand you this same pamphlet again entitled "Statistics of Glucose Industry" and a man who prepares an article in that under the name of T. Austin, on page 59, takes the liberty of quoting from an article of yours. I wish you would read it, two or three sentences there, from an article of yours in some encyclopedia, and state whether that is a correct representation of your article?

A. I have no reason to doubt it, but I can't verify it without making a comparison.

Q. Will you read it please.

A. "Professor Chandler, President of the New York Board of Health writes of 'syrup' in Johnson's Encyclopedia." Now comes the quotation: "One or two establishments prepare a syrup
376 made by combining sugar-house molasses with glucose prepared from Indian corn, which is entirely harmless."

Q. Do you find such a term defined in either Webster's Inter-

national Dictionary, the Century Dictionary or the Standard Dictionary of the English language as "corn syrup"?

A. I don't remember.

Q. Well, you have examined these dictionaries, have you not, carefully, doctor?

A. No, I didn't examine them.

Q. You examined them carefully enough, did you not, to get in this brief that you prepared for the three secretaries at Washington the dictionary definitions?

A. I think there may be some such definitions there. I have forgotten them.

Q. Found on page 7.

A. Those are references to show the use of the word "syrup."

Q. Yes. Now, in order to show the use of the word syrup I presume you wished to show to the secretaries as accurately as possible the correct definition of the term when you quoted from the dictionaries, didn't you—wasn't that your object, doctor?

A. The object was to show that the term "syrup" was in common use for solutions of glucose, and that was all.

Q. You understood, didn't you that the object of that hearing was to determine, if possible, the proper nomenclature to be attached here to this article?

A. A ruling had been made—

Q. Just answer the question.

A. That this was not syrup—

Court: Just answer the question.

(Question read.)

Court: I think that you can answer that by yes or no.

A. I will say yes to that.

377 Q. And as aiding them in that, you quoted from the Standard Dictionary, "Syrup, a thick, sweet liquid," didn't you?

A. I did.

Q. Right after that quotation from the Standard Dictionary comes, does it not, the following: "Specifically: 1. A saturated solution of sugar in water often combined with some medicinal substance or flavored as with the juice of fruits, for use in confections, cookery, or the preparation of beverages."

A. I don't remember whether it is there or not.

Q. Well, if there you omitted it?

A. Of course we were not talking about that kind of syrup.

Q. "2. The uncrystallizable portion of any saccharine substance, as sugar-cane juice, separated from the crystallizable sugar during the process of sugar-boiling, or that which drains from sugar in the process of separating or refining; called molasses by planters." You didn't state that, did you?

A. No. That was not involved in the issue.

Q. Well, the contention made on the part of Dr. Wiley and those agreeing with him was, wasn't it, that the term syrup should be applied to those articles which are commonly understood by the

people as having been made from the juice of a sugar producing plant?

A. That's a new distinction in the English language which Dr. Wiley tried to establish.

Q. Well, that was the contention?

A. Yes.

Q. And you knew that this definition bore out that contention?

A. It doesn't bear it out.

Q. "3. The condensed cane juice before separation of the crystallizable sugar: so called specifically by planters." You omitted that, didn't you?

A. I did.

378 Q. You knew that such definitions as those did not include glucose, didn't you?

A. They have nothing to do with glucose. The object wasn't to prove that other things ought not to be called glucose, but simply that glucose should be called syrup.

Q. Well, you knew that those definitions would exclude glucose?

A. No.

Q. Do you think now that glucose would come under either of those definitions?

A. Those are other kinds of syrups. A cane-syrup product is called a syrup. There is no reason why a glucose product shouldn't be called a syrup.

Q. Wouldn't mucilage of acacia if sweetened with some artificial saccharine substance come under your first definition, "a thick, sweet liquid"?

A. It isn't my definition, but it would come under that definition.

Q. Wouldn't glycerine come under that definition?

A. No, that isn't understood to be a syrup.

Q. What was your definition this morning and what is it now of a syrup?

A. It's a thick solution of some kind of sugar. Any other liquid which is thick may be called syrupy, because it is thick——

Q. I didn't say syrupy.

A. But it wouldn't be properly a syrup, not in a commercial sense.

Q. Glucose wouldn't come within that definition, would it?

A. Why, certainly it would.

Q. Don't it contain some substance that is not sweet and is not a sugar?

A. It isn't necessary that it should be all sugar.

379 Q. That you didn't have though in your definition as you just — it, did you?

A. Well, I wanted to make a short, sharp definition. I didn't exclude things that were not sugar.

Q. This morning you did go farther and say that although it included other substances not sweet, it would properly be called a syrup, didn't you?

A. Certainly. I say it now.

Q. You didn't entertain that opinion when you submitted this brief to the three secretaries, did you?

A. I don't know.

Q. Look at pages 5 and 6 of this compendium and see whether you haven't changed your definition between these two dates?

A. I think not. I say that any thick, sweet liquid is a syrup, no matter what kind of sugar it contains.

Q. Yes, no matter what kind of sugar it contains.

A. Well, that doesn't exclude things that would be associated with the sugar.

Q. You proceeded then to develop your idea, did you not: "It might contain either one of the following sugars or contain two or more of them at the same time," then you specified, did you not, cane-sugar, first?

A. Yes sir.

Q. Then you specify: "With dextrose found with levulose in the sweet anid fruits, such as apples, peaches, pears, currants," etc. Then you specify "levulose found as above mentioned"?

A. Yes sir.

Q. "In association with dextrose."

A. Yes.

Q. Then you specify "maltose"?

A. Yes.

Q. "Produced by action of malt on starch."

A. Yes.

380 Q. Then you specify "milk sugar." Then you add: "A thick, sweet solution of any one or more of the above sugars would constitute a syrup in the proper acceptance and use of the word syrup."

A. I do.

Q. You haven't got in any one of those different examples there any article but what contains sugar or a——

A. Those are the constituents which give it the character of a sweet syrup. Now, the presence of other substances doesn't make it any less a syrup, and I don't say so.

Q. You intended, did you not, by these examples and illustrations to put them in as a part of your definition?

A. Not as an exclusive definition; but as the characteristic constituents.

Q. How about then mucilage of acacia with five per cent of cane sugar added, would you call that a syrup?

A. Well, that's rather doubtful.

Q. Well, why is it doubtful?

A. Because it isn't substantially a sugar solution.

Q. Why not?

A. It is merely a mucilage solution slightly sweetened, five per cent.

Q. But it comes clearly within the definition that you say ought to be adopted here as a syrup, doesn't it?

A. Well, that's doubtful. The sugar isn't a characteristic constituent. That's a mucilaginous substance which isn't exactly a syrup.

Q. But it is a thick, sweet solution, is it not, in liquid form, and contains some saccharine substance?

A. Yes.

Q. But it contains other substances, doesn't it?

A. It is essentially something else. It's essentially a solution of mucilage.

Q. When practically one-half of an article is essentially something else, do you think that it is quite right to designate that as a syrup, the same as these other syrups that have been known as table syrup for a century?

A. I do, because it is used as a syrup, it is manufactured for a syrup, and it is consumed for a syrup, and it is like a syrup, and its characteristic constituents are sugar.

Q. Anything that is eaten then that is of a thick liquid substance, if it is sweet, is a syrup?

A. If it is substantially sugar, yes.

Q. Well, then honey would be a syrup?

A. In a certain sense, yes.

Q. That would come within your definition?

A. I think it would.

Q. Do you think that that kind of a definition would be of any practical service in the application of a pure food law?

A. I don't see any reason why it shouldn't whatever.

Q. Would sweetened condensed milk come within your definition?

A. No.

Q. Why not?

A. Because its characteristic is milk with a little sugar in it.

Q. Isn't most of it sugar, most of the solid?

A. There may be a large amount of sugar in it.

Q. Most of the solids are sugar, aren't they?

A. No, I don't know that they are.

Q. Practically so?

A. Not of the condensed milks which I have examined.

Q. How about extract of malt, wouldn't that come within your definition of a syrup?

A. I don't know the composition of extract of malt.

Q. Now, you proceed further here to illustrate your idea:
382 "Now with regard to the propriety of applying the word syrup to the particular thick, sweet solution of sugar obtained by treating starch with acid, I would say that it — a matter of common custom and has been for nearly one hundred years to call the solution of starch sugar "syrup." That's what you said, wasn't it?

A. It was.

Q. Now, this article we are dealing with is not a solution of starch sugar, is it?

A. Substantially, yes.

Q. You know what starch sugar is, doctor?

A. I do.

Q. Starch sugar don't contain any dextrin, does it?

A. It does generally.

Q. Not to amount to anything.

A. It often contains a great deal.

Q. Well, starch sugar, if it is at all pure contains but a very small percentage of dextrine, doesn't it?

A. It depends on what kind of starch sugar you are talking about.

Q. The starch sugar that is used under that designation, and I mean further, the purer you get the form of starch sugar the less dextrin you have got?

A. The further you carry the conversion the less dextrin you have got.

Q. And you can carry it so far that you get 99 per cent of starch sugar?

A. You can.

Q. And there is practically no dextrin left?

A. Not when you get up to 99 per cent.

Q. So the article here is not, properly speaking, a solution of starch sugar?

A. It is. The term is used in a general way for all kinds of starch sugar no matter how far the—

383 Q. Are our terms in chemistry or practical use to be left in such a loose way as that?

A. They are not loose. Every word in the English language has a meaning that—

Q. And yet it is well understood, the difference between commercial glucose and starch sugar, isn't it?

A. Commercial sugar?

Q. Commercial glucose and starch sugar, the distinction between the two is well understood, isn't it?

A. Starch sugar is a term used in commerce. You are comparing a chemical term with a commercial.

Q. Grape sugar then?

A. Grape sugar is a commercial term to be put on a par with glucose.

Q. There is a clear distinction between commercial glucose and grape sugar?

A. There is.

Q. Understood generally?

A. They are both commercial terms.

Q. Now, one of the main distinctions between the two is, in commercial glucose you have dextrin in large quantity and that in grape sugar you have hardly none?

A. That is true. And it has to be so, otherwise it wouldn't remain liquid.

Q. Page 147 of Food Inspection and Analysis by Leach shows, doesn't it, that in the analysis of condensed milk there is much more sugar than in any other solid?

A. Yes sir. The one at the bottom is "unsweetened condensed milk". I see the one above is "sweetened condensed milk". Now, I am looking to find the percentage of sugar. One of them gives 47, another 38, another 37, another 41, another 40, and another 43.

Q. Don't all of them contain more cane sugar than other solids found in the condensed milk?

384 A. Yes, I think every one of them does.

Q. Now, can you state any authority, either chemically or commercially, to justify the use of the term sugar to cover dextrin?

A. No, I don't know of anybody calling dextrin sugar.

Q. Doctor, you have named a great many substances from which starch may be made I believe?

A. Yes.

Q. Although there are only a few from which it can be made commercially—profitably I mean?

A. That's true.

Q. Corn being the one in this country and potatoes in Germany?

A. Those are not the only ones.

Q. No, but generally speaking those are the prominent ones?

A. Those are the prominent materials.

Q. Now, I think you will concede that glucose is made from some form of starch, is it not?

A. Yes, chemically starch, but not commercially starch.

Q. I will come to that later. It is made from starch?

A. It is, chemically speaking.

Q. You make a distinction, if I understand you, between starch chemically speaking and commercially speaking?

A. I do.

Q. The difference being, if I understand you rightly, in the impurities contained in the one and not in the other?

A. In part.

Q. I understood you this morning as stating that in the process of manufacture here of glucose there would be left in the starch considerable quantities of protein?

A. I did.

Q. What percentage of protein would there be left in the starch?

385 A. I don't know the percentage, but there is so much that when the starch is used for laundry starch or for corn starch it has to be taken out by means of an alkali.

Q. Isn't it the object, whatever purpose you produce your starch for, to get the starch as free from protein substances as possible?

A. In the case of laundry starch and corn starch for food the starch is freed to a greater or less extent from the proteids. When the starch glucose is manufactured the starch is not purified at all, but is first converted into the glucose and the purification takes place of the glucose and not of the starch.

Q. How much of those proteids remain in the finished product in the manufacture of starch?

A. I don't know the exact quantity. The bone-black through which the glucose is filtered, and filtered to such an excessive degree, removes almost entirely all the proteid substances that were contained in the green starch from which the glucose was manufactured.

Q. The manufacture of starch from corn and potatoes, as you said, is an old thing, been carried on for over a century, hasn't it?

A. It has, but great improvements have been made in the processes.

Q. Could you not, doctor, make glucose from commercial corn starch or other starch which would be identical with glucose made from moist starch in the continuous process?

A. I think that might be possible. I never saw or heard of its being done.

Q. You made certain analyses which were given in this academy report.

A. They were made under my direction—some of them were made under my direction.

Q. Well, that is, I think, proper to say, that you made them or are responsible for them. You approved of them any way. Analyses of commercial glucose?

A. Yes.

386 Q. Did those analyses show that there was any protein left in that commercial glucose as thus analyzed by your committee?

A. No effect was made to ascertain whether there was or was not any protein, and none is shown in the analyses; but the absence of figures, as I recollect, the analyses, does not prove whether there was or was not protein there.

Q. One of the main objects of that investigation was to determine the wholesomeness or unwholesomeness of this article, wasn't it?

A. Yes.

Q. Now, to arrive at that conclusion wouldn't it be necessary for you to determine whether or not any of these substances, protein substances, remained in the article which you analyzed?

A. Not at all. The protein substances that occur in the original, raw material are entirely wholesome and it is a matter of total indifference whether they remain in the article or not.

Q. How do you know they are wholesome when you didn't analyze them?

A. Well, I know the material they were made from, corn. There are no unwholesome proteids in corn.

Q. Might not the proteids be changed by the boiling with acids?

A. The bone-black through which they are filtered (removes) remedies any such substance.

Q. Well, would you assume that as a chemist and not proceed to analyze the substance in order to determine whether there was any unwholesomeness left through the operation of the acids?

A. Well, the consensus of opinion among the chemists was that that matter answered itself, and it was not necessary to make any analyses except those that we did make. We were satisfied on the other point from our general knowledge on the subject.

Q. You claimed, didn't you, to have made in this report an exhaustive investigation of the ingredients that enter into this article commercial glucose, that were left in it?

387 A. No, we did not.

Q. You didn't understand that that is what you were appointed for?

A. We were appointed to find out whether glucose was wholesome or not. After having made all the tests and examination and studies that were necessary, we reported that in our opinion it was not unwholesome.

Q. It would be a very simple matter for you to determine whether there were any protein substances left or not?

A. Yes.

Q. Although at page 81 you state in great detail the amount of the water, the ash, the sulphuric acid, the chlorin, the lime and magnesia, and the alkali.

A. That's true. The object of that was to find out whether there were any objectionable chemicals introduced in the process of manufacture.

Q. Then on page 80 you also examined to determine very carefully the different percentages of dextrin and maltose and dextrose and water in all the samples?

A. Certainly. That was to find out the chief constituents of the products.

Q. Didn't you at page 78, under the head of "Organic Constituents" make an authoritative statement of the organic constituents in the products which you analyzed, and then you left out, as I understand you, protein?

A. We didn't say that we determined all the minute organic constituents, but we determined those that we regarded as essential.

Q. Did you consider protein a minute organic substance not to be considered in the article commercial glucose?

A. We did.

Q. You discussed that, did you?

A. We knew that the bone-black used in the manufacture
388 of commercial glucose removed the proteids.

Q. All of them?

A. Substantially.

Q. How did you know beforehand?

A. Why, we were all chemists.

Q. You hadn't been manufacturing glucose, had you?

A. No, but all-around chemists know the nature of things and they don't have to make a special examination every time.

Q. You might have concluded that from your knowledge as an expert chemist in a great many other directions here instead of going on and doing the work?

A. We did what we thought was necessary in response to an inquiry from a government official.

Q. It wouldn't have taken you but a short time to have examined the whole nineteen articles or samples furnished to determine whether there was protein in every one of them?

A. Not if we thought it was worth while to do it.

Q. Now, I want to call your attention to page 70 of this report which is under the general head of the "Manufacture of Starch Sugar", and subheaded under that first you have "Subtracting the Starch", under that "Steeping" under that "Grinding", under that "Separation of the Starch" at subdivision 3, under that subdivision

4 as follows: "The water from the shakers holding the starch in suspension is run either directly uppn the tables or into wooden vats, where the starch settles and the water is drawn off and discarded. The starch is next thoroughly agitated with fresh water, to which a small quantity of caustic sodax or carbonate of soda has been added. The object in adding alkali is to dissolve and remove the gluten and other albumenoids, oil, etc". You approved of that statement, didn't you?

A. Yes. That was the method employed at one time, but
389 that is not the method employed at the present time. This was twenty-five years ago.

Q. They don't do it the same way now?

A. No, they have found a better way of doing it.

Q. But they get the same results?

A. The glucose when it is finished—

Q. They get ultimately a starch, do they not, that is the same kind of starch that was got in the old method?

A. No, they don't get the same kind of starch. They destroy the starch.

Q. The same impurities in it or free from impurities, isn't it?

A. No, they don't get the same kind of starch in making glucose that they get in making corn starch.

Q. Isn't the starch the same?

A. The starch is the same.

Q. The difference being the small amount of impurities left in it in the one case and not in the other?

A. Yes. That I have stated already.

Q. It's only the product left ultimately, coming from the starch itself, that is intended to go into the glucose, freed from these impurities?

A. Yes.

Q. So the whole thing we have been talking about here is, not a difference in the nature of the article, starch, out of which glucose is made, but some difference in the method of procedure?

A. No, you are wrong there. The starch from which the glucose is made is different from the starch that is sold as corn starch or laundry starch.

Q. It is at first until the impurities are removed?

A. Yes.

390 Q. Those impurities are ultimately removed?

A. Not from the starch.

Q. What is it removed from?

A. The glucose.

Q. Well, they are removed?

A. Yes, they are removed.

Q. Formerly the impurities were removed before the treatment of the substance by sulphuric acid?

A. They were at one time.

Q. Now they are removed after the treatment of the substance with or by sulphuric acid.

A. They don't use sulphuric acid any more.

Q. What ever acid they use.

A. Yes.

Q. What acid do they use?

A. Hydrochloric.

Q. That is the only difference, isn't it?

A. That is the substantial difference.

Q. So that the article glucose comes from the starch?

A. Yes, the sugar part of it.

Q. You say the sugar part of it. I am talking about commercial glucose?

A. Yes, commercial glucose comes from the impure starch that was used to make it.

Q. And the dextrin comes from the starch.

A. The dextrin comes from the starch also.

Q. And the maltose comes from the starch?

A. The maltose comes from the starch.

Q. Now, I would like to ask you, Dr. Chandler, whether it is possible, with any claim to absolute accuracy, for any chemist to find out by analysis whether glucose was made from farina, 391 maize, starch, tapioca, sago, or any other of the flours?

A. I can't say. I never have had occasion to attempt to make such a distinction.

Q. Do you claim that you would be able, limiting ourselves, to determine whether commercial glucose was made from the starch of corn or the starch of potatoes?

A. I don't know.

Q. It is your best opinion, is it not, that you could not?

A. Well, I think possibly that it might be easy. My recollection, is, it is a long time since I saw any potato glucose, but my recollection is that the potato glucose has a peculiar little flavor, I am not sure about it, but it might have, and it might be easy to distinguish, just as you could distinguish maple sugar from cane sugar.

Q. I thought there was one thing that we could agree on, that starch was starch.

A. But the starch is never used in the pure state and it carries with it other things which under the influence of the reagents may yield products which would enable you to distinguish.

Q. We got rid of the impurities I thought.

A. You didn't get rid of every substance. Besides, impurities is a word which has a double meaning.

Q. The aim is to get rid of the impurities?

A. The objectionable substances present, but not to get rid of the things which are there and not objectionable.

Q. I thought you said glucose was a sort of a colorless, characterless product?

A. Yes.

Q. Has no distinctive flavor?

A. Not any decided flavor. I was speaking of corn syrup glucose.

Q. Now, if it were true that it would be impossible to determine by analysis from what particular starch the commercial glucose is made, then there would be chances, would 392

there not, for misinformation, if not deception, in the putting off upon the market an article made and calling it corn syrup?

A. If it was made from something else it wouldn't be corn syrup.

Q. Although you couldn't distinguish the glucose in that case from glucose that is made from the corn?

A. I don't know but what you could. I don't say that you couldn't.

Q. I say, if you couldn't?

A. Of course, if you couldn't distinguish them.

Q. Then if it ever becomes true that they make corn syrup from the stalk of the corn, it would be misleading, wouldn't it, to brand another article made from starch as corn syrup?

A. In a sense, yes; but if it was so alike, of exactly the same composition, there would be no object in making a distinction.

Q. Can you give us any authority either in this country or in any other country for the statement that you think that there may be a difference in the character of the glucose that is made from starch coming from different kinds of grain or different sources?

A. I can not.

(Recess.)

WITNESS: Mr. Counsel, I think I must have misunderstood one of the last questions. I think you asked me something about making glucose from corn starch and the counsel on the other side tells me that it was corn stalks. I should like to have the last question but one read.

Q. No, I didn't ask any question about corn stalks. You understood it rightly. I meant to ask about corn.

(Last question and answer read.)

A. I was thinking entirely of the starch and I didn't realize that you meant another kind of sugar.

COURT: Do you want to change or correct your answer in any way?

A. Yes, I would like to say that if the sugar or syrup were made from corn stalks, the proper name would be "corn stalk sugar" and "corn stalk syrup."

Q. Then the proper name for glucose would be "corn starch sugar," wouldn't it, and "Corn starch syrup"?

A. If they could make glucose and starch sugar out of corn stalks, then it should be called corn stalk sugar.

Q. Then upon that supposition you ought to name the article that is made from the starch that comes from the kernel of the corn, you ought to label that "corn starch syrup" or "corn starch sugar"?

A. You can call it "corn sugar" or "corn syrup" or "corn starch sugar" or "corn starch syrup" whichever you please.

Q. Why do you say that, doctor, with reference to that article when you say if it — made from the stalk of the corn then the name is "corn stalk syrup" or "corn stalk sugar"?

A. Because in every day life the word corn represents the grain.

Of course the farmer out in the country talks about how his field of corn looks and he refers to the plant, but when we talk about corn in commerce, the corn stalks not being a commercial article, they are not quoted in the newspapers every day, and when the newspaper quotes the price of corn it means the kernel of the corn and it is the price per bushel, and that is what we understand as corn.

Q. We agree, do we not, that glucose is made from starch?

A. It is.

Q. And not from the kernel of the corn in the same sense that cane sugar is made from the stalk or juice from the stalk or juice of the cane?

A. Not in exactly the same sense.

Q. Now, I say to be fair and use an honest naming of the
394 articles, if you are going to name the one "corn stalk sugar" or "corn syrup" as indicating the exact source of the article, you ought in the other case, ought you not, to use the term "corn starch sugar" or "corn starch syrup" as indicating the article glucose?

A. I don't think so. I think "corn syrup" is a perfectly honest, logical, proper name, and I understand it isn't the intention of the pure food law to interfere with the liberty of people in using names, provided they don't cheat.

Q. I wasn't calling upon you to interpret the pure food laws. You think it would be proper, do you, to advertise that an article which is, so far as the corn is concerned, made up wholly of number 1 glucose, should be advertised as coming from the kernel of the corn?

A. Undoubtedly.

Q. As "containing the essence of the corn"?

A. Yes, it contains the essence of the corn.

Q. And decorated with the ears of the corn?

A. Quite proper.

Q. You don't think that the ordinary citizen who has been in the habit of buying syrup might not think that this product as advertised in that way came from the grain of the corn in the same way that the cane syrup comes from the stalk of the cane?

A. The average citizen doesn't know anything about where the cane syrup comes from.

Q. You speak for them on that, that is your opinion, is it, doctor?

A. It is.

Q. Well, I think you do us out west here a little injustice. Now, I understand, doctor, that as early as 1869 you were engaged or employed by a sugar refining company?

A. I was.

Q. And this company was engaged in the making of sugar from what?

395 A. It was the refining of sugar from the sugar cane.

Q. You know by reading and investigation that glucose, commercially, and grape-sugar, commercially, have been made for a century or more in the old country?

A. I do.

Q. You know and have known for a great many years that in order to make the grape-sugar—I am using that term now as I think you indicated was the proper one—you pursue the process of practically convert the article into what's called dextrose, you convert your glucose into what is called dextrose, don't you?

A. Substantially.

Q. And in that process you substantially eliminate or get rid of dextrin?

A. You don't get rid of it, you change it into dextrose.

Q. Well, you change it chemically into dextrose?

Mr. FAIRCHILD: You said convert glucose into dextrose.

Mr. OLIN: I meant convert dextrin into dextrose.

Q. Now, that commercial article, whether called starch syrup or glucose or potato syrup, whatever you call it, has been used, hasn't it, for a long number of years, a century or so, as a food product?

A. It has.

Q. You have known that the article commercial glucose in order to keep it in that form would have to contain the dextrin?

A. That has been known for some time.

Q. You have known that for forty years, haven't you?

A. No, because I didn't know it when we made this report to the National Academy.

Q. Although you had been employed by a sugar refiner?

A. He didn't use glucose.

Q. And although you have made all this study and investigation, commencing back I think, in experimenting with glucose in Germany in 1855 you said.

A. That was determining the percentage of dextrose in a liquid.

Q. I am not going into details. And you had followed on your studies and instruction from that time down, I understood?

A. More or less.

Q. And yet you say as late as 1883 or 1884 you didn't know that in order to retain the article in the liquid form you needed the presence of dextrin, did you?

A. I didn't know it. If I had known it I wouldn't have forgotten it.

Q. Do you wish to state that as eminent a chemist as Dr. Remsen was at that time signed a report to the effect that he didn't know that it was necessary to retain dextrin in order to retain the article in a liquid form?

A. I do. I don't think that fact appears in a book that was accessible to any of us at that time.

Q. You say it didn't appear in any book? Hadn't there been food analyses, standard works gotten out in Germany and England and France long before this, on this manufacture of glucose?

A. They didn't touch upon that question at all as far as I know.

Q. They didn't deal with the question that there were these elements of dextrin and maltose and dextrose in the article?

A. No, I didn't say that. They didn't deal with the fact that there was an object in having dextrin left unconverted in order to prevent the glucose from solidifying.

Q. Do you say that none of those books treated it?

A. I don't think so. We were not aware of it at the time we wrote that report. We may have overlooked some such statement, but it is a fact that we did.

Q. This report of page 77 contains, does it not, the following: "Assuming that in the process of manufacture perfectly pure starch, acid and water were used, that nothing foreign was introduced, and that the transformations were carried to the end, the product would be pure dextrose. But the conditions under which the manufacturers work permit of considerable variations in the composition of the products. In the first place, the transformation of the starch into dextrose may not be perfect. Indeed, if sulphuric acid be used to effect the transformation, it is impossible, even under the most favorable conditions, to transform more than 95 per cent, of the starch into dextrose. The extent of the transformation is dependent upon the strength of the acid, the temperature, and the time during which the heating is continued. The intermediate products are chiefly maltose and dextrin, which may be present in greater or smaller quantities according to the way the process is carried out. If the product is to be used in the form of a syrup, then the presence of dextrin is objectionable, as it has no sweetening power, though it does not produce injurious effects on the system." That is contained in your report?

A. It is. I have already explained how it happened to get there.

Q. Now, at and prior to that time you knew, didn't you that this commercial product glucose was being used extensively in this country as an adulterant with syrups proper?

A. Yes I had heard that it was. It was never used in that way in the factory with which I was connected.

Q. Didn't you have in mind then when you wrote this the idea that a syrup should be what it was understood to be, sweet, and that just to the extent that you introduce this other element, dextrin, which was not sweet, you adulterated the article called syrup?

A. In the sense that it was not sweet, not otherwise; not that it was less wholesome.

Q. Wasn't that the fact that was in the mind of this committee, that it was not an honest article to put out labeled as a syrup if it contained a mixture of this glucose, because to the extent that it contains dextrin it wouldn't be a sweet article?

A. No, it was a sweet article, but it would be sweeter if all the dextrin was converted into the dextrose.

Q. I say, to the extent that the dextrin was in there it wouldn't be sweet?

A. It wouldn't be as sweet.

Q. Now that is the reason you made that statement, isn't it?

A. Yes, because we didn't know there was any necessity for leaving it in.

Q. Well, it wouldn't be any sweeter today, would it, than it would be in 1884?

A. No, but there is a reason for leaving it in now—an absolute necessity for leaving it in.

Q. Well, there wouldn't be any objection to leaving it in and selling it as a syrup if you labeled it for what it was, would there?

A. If we labeled it corn syrup, that tells what it is.

Q. You didn't have any other idea of syrup in your mind at that time?

A. In what sense?

Q. Than you have now?

A. I don't know what sense you are referring to.

Q. Well, the idea you had of a syrup then was something that was sweet, that belonged to the sugar, wasn't it?

A. Yes, and we didn't have the keeping question in our minds, we didn't know that it had to be prepared so as to keep and not solidify in the package.

Q. What are known as molasses are what are obtained in the manufacture of sugar, are they not, a resultant that doesn't
399 crystallize out?

A. Yes, that is the general meaning of the term molasses.

Q. Now, to the extent that there are any impurities there, that prevents the crystallization, doesn't it?

A. It depends on what you understand by an impurity. One pound of glucose will prevent one pound of cane sugar from crystallizing. Consequently, when the percentage of cane sugar has been reduced by extracting the sugar, taking out the white, buff and yellow sugar, the glucose is left behind and by and by the amount of cane sugar that is left as such, with the glucose present, and the saline matter present, prevents its crystallization. Now, the glucose is not an impurity, it is another kind of sugar.

Q. Well, there are impurities, aren't there?

A. No, there are no impurities.

Q. But there are certain impurities?

A. I don't know that it — proper to call them impurities. You see the molasses are put through bone-black and the real impurities are taken out of it.

Q. Well, we will pass that for the present. I wish to direct your attention to page 73 of this report. Now, on page 73 of this academy report you say: "Starch sugar appears in commerce in a great variety of grades, under the following names, "Then you classify a and b, do you not?

A. Yes.

A. First the a, the liquid variety, and under that follows these terms: "glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose". I have read it correctly, haven't I?

A. Yes.

Q. Then follow the solid varieties under (b) which I will not read. After stating the solid varieties there is this found in the report,

400 isn't there: "One establishment puts upon the market two varieties of starch sugar and the names", new paragraph "1. Maltose or maltose syrup for brewers. 2. Maize sugar or syrup for confectioners", new paragraph, "And claims that they do not contain grape-sugar (dextrose) but consist essentially of maltose (New paragraph). The committee visited the factory but it was not in operation, nor were the proprietors disposed to inform the committee of the nature of their processes, which they deemed it important to hold secret. They kindly supplied samples, however, and these are included in the lists of analyses". I have read that correctly, haven't I?

A. You have.

Q. Now, on page 80 there is this statement, isn't there: "Nineteen numbered samples in all were sent for examination. Of these seventeen were analyzed, number 5 being wanting in the lot as received, and number 11 evidently being a sample of impure cane sugar. In table 1 the figures are given as obtained, and in table 2 the percentages of the constituents are given, as calculated by the method given above. Numbers 7, 8, 9, 10, 12, 13 and 15 were solids, the others liquids, numbers 7 and 19 evidently contained considerable burnt sugar, to which fact the scarce results obtained in the analyses are at least partly to be attributed. Numbers 8, 19 and 15 are specifically pure specimens of grape-sugar and certainly do not represent the average composition of grape-sugar. As a fair sample of commercial grape-sugar numbers 12, 13 and 15 may be taken. In these as will be seen the amount of dextrose present is between 72 and 73.4 per cent. while the dextrin varies from 2.4 per cent to 9.1 per cent. As regards the liquid product, the so-called glucoses, it will be seen that the amount of dextrose present in them varies from 34.3 to 42.8, and the amount of dextrin from 29.8 to 25. It should be said
401 that the constituents thus far mentioned are in themselves not injurious when taken into the system, though, as above stated, the dextrin has no sweetening power and hence it has no value as a constituent of table syrup or sugar". Now, I read that, doctor, because I thought it necessary to explain what I now want to call your attention to, the table number 2 on page 80 and the table found on page 81. In table number 2 you give, do you not, an analyses of these samples running from number 1 up to number 19, omitting, however, number 5 and number 11?

A. We do.

Q. You state there the percentage of dextrose, of maltose, of dextrin and of water, in each case?

A. We do.

Q. Now on page 81 you give each one of these nineteen samples, do you not?

A. We do.

Q. Under the names as they were given you?

A. We do.

Q. Do you find anywhere the name of "corn syrup" in any one of those nineteen samples?

A. I do not.

Q. You do find, however, do you not, the name "maize syrup" opposite number 17?

A. I do.

Q. And do you find also "maltose opposite number 16?"

A. I do.

Q. And "Maltose" and "cane syrup" have indicated after them the letter G, in each case indicating the factory from which they came, haven't they?

A. Yes.

Q. That indicates that those two articles came from the same factory, don't it?

402 A. It does.

Q. Now, if you will kindly turn back to page 73, you there see, do you not, what I read, that there was a certain factory whose propiretor didn't want to let you know the secrets of the trade, and he gave you two terms "maltose" and "maize sugar", didn't he?

A. Apparently.

Q. Now, as to 16, turn to page 80, and under the term "maltose" will you tell us how much maltose your analysis determined was in that article, that number?

A. Number 16? Why, only one-sixth of one per cent.

Q. It had one-sixth of one per cent, didn't it?

A. One-sixth of one per cent of maltose.

Q. And yet he was selling it under the name of "maltose"?

A. He was, at least I don't know whether he sold it, he called it that.

Q. That was the fellow who wouldn't let you see into the secrets of his trade, wasn't it?

A. Apparently.

Q. Now, we will take the fellow who gave it "maize syrup", that is number 17, let us see what you find there. It is stated, isn't it, that you found 39 per cent dextrose?

A. Yes.

Q. And no maltose at all, did you?

A. No maltose.

Q. Dextrin you found 41.4 didn't you?

A. Yes.

Q. And water 19.3?

A. Yes sir.

Q. You fund a very high percentage of dextrin, didn't you?

A. We did.

Q. No maltose at all?

403 A. No maltose at all.

Q. And that is what he named "maize syrup"?

A. It was.

Q. Now, doctor, isn't it your opinion that there is where you got the idea of "corn syrup" in this investigation and that you in enumerating it here in one place called it "corn syrup" and in the other place "maize syrup"?

A. There isn't the slightest reason to suppose that to be the case.

Q. Although you only got nineteen samples, as your report shows,

and you have got the nineteen named on page 81, and under those names there is not one that gives the name of "corn syrup" is there?

A. No.

Q. How do you account for that fact, after having stated on page 80 that you had nineteen numbered samples only, and on page 81 you have accounted for every one of those samples under their proper names?

A. Why, I don't have to do any accounting. We stated the names under which we found that glucose was being sold in the market. We had nothing to do with the particular samples which we analyzed. We didn't buy those samples in the market—at least I have forgotten how we did get those samples, to tell the truth. I know I sent my assistant to the several factories and he brought back several of the samples, and it is possible that Professor Rensen procured some of the samples, because he had the analyses made which determined the dextrin and dextrose, etc. I have really forgotten how the samples were procured. I know I had quantities of samples.

Q. That table on page 81 professes to give the name of every one of the nineteen samples, doesn't it?

A. Yes, but—

Q. And you have got in the "maize" and the "maltose" 404 that we found on page 73?

A. That is true, but we didn't go out and buy samples of every name, glucose, jelly glucose, confectioners' crystal glucose; we haven't any mixing glucose, we haven't any mixing syrup, we haven't any grape-sugar.

Q. Do you say you haven't any mixing syrup?

A. Well, there may be a mixing syrup there, but half of the names we found this material was sold under are not represented in the names of the nineteen samples that are analyzed. There is no connection between that part of the report and the analysis part of the report.

Q. Did you understand at that time what corn syrup was?

A. We knew that it was glucose.

Q. You knew that it was glucose?

A. We understood that it was glucose.

Q. Did you understand that it was unmixed glucose?

A. I don't remember about that.

Q. Had you ever heard of it being sold at that time as unmixed glucose?

A. That was one of the names of the liquid varieties of glucose.

Q. I say, had you ever heard of its being sold unmixed as "corn syrup" up to that time?

A. There wasn't any question as to whether it was mixed or unmixed.

Q. Did you understand it was mixed?

A. We understand it was one of the names for liquid glucose unmixed.

Q. Unmixed?

A. Unmixed. They might mix it afterwards as much as they liked, but it was unmixed glucose.

Q. You can't say that you had ever heard of any such article being sold in the market at that time?

405 A. Why, we did hear that it was sold in the market as one of the kinds of liquid glucose unmixed.

Q. Didn't you hear that it was a mixed article?

A. No, because if we had, we would have put it in that list. That represents the list under glucose.

Q. Although you got mixing syrup and mixing glucose?

A. Well, mixing syrup was glucose to be used for mixing with refiners' syrup.

Q. What is that term, mixing glucose?

A. Why, mixing glucose is another name for mixing syrup, another name for the same article.

Q. Didn't it simply mean mixing glucose is used for mixing purposes with other syrups?

A. That is it exactly.

Q. And mixing syrup meant what was used in mixing with glucose?

A. No, it was glucose to be mixed with refiners' syrup.

Q. Then mixing glucose and mixing syrup are the same thing?

A. The same thing, only different manufacturers use different names.

Q. Did it occur to you to analyze this rather unusual name "corn syrup"?

A. We were not analyzing names, we were analyzing the products of the factories. We didn't care about the names they called them by. It was the article we were to investigate.

Q. You didn't think it would be wise for the committee to analyze this article that was named corn syrup?

A. Why no, it was nothing but a name.

Q. I think you said you were familiar with this book of Frankel?

A. Well, I can't say that I am very familiar with it. I have seen it.

Q. Well, it is on "Starch, Glucose, Starch-sugar and Dextrin".

406 That is on the outside of it. Now the edition we have here that I show you is 1881. Now, you were especially investigating at this time this subject as you said. On page 196 under the head of "The Manufacture of Glucose and Starch-Sugar from Starch" I find this statement: "From this syrup no solid sugar will separate, since its ability to crystal-ize is checked by the presence of the dextrin". Were you not familiar, Dr. Chandler, with that leading book right on that subject that you were investigating at that time?

A. I was not.

Q. And do you wish to say that no other member of that eminent committee was familiar with the statement made that I have read to you?

A. It is evident from the report that they were not familiar with it.

Q. Would it be evident from the report that they were not familiar with it, if, as I indicated in my question, what you had in mind was that a syrup should be sweet, as it was commonly under-

stood, and that to the extent that the syrup was adulterated by an article that contained dextrin in it, as glucose does, it would be adulterated?

A. No, I shouldn't answer it in that language. I should say that in speaking of a glucose solution as a sweetener, the committee not aware of the fact that dextrin was necessary to keep it in a fluid state, they regarded the presence of that dextrin in place of an equivalent quantity of dextrose a failure to reach the maximum degree of sweetness.

Q. There appears, does there not, on page 77 of this report of the committee of the Academy of Sciences the following: "The names grape-sugar, glucose and dextrose, when used by a chemist, are meant to designate the same substance. In commerce, however, as already stated, the names grape-sugar and glucose have a somewhat different meaning, the former being applied to the solid and
407 the latter to the liquid products."

A. That's true.

Q. And that's true now, isn't it?

A. Yes.

Q. That the term glucose is applied to the liquid product?

A. Yes.

Q. So that as among the common people it is commonly understood that this term glucose in this country is used to designate this commercial unmixed article today?

A. Well, I don't think among the common people they know whether it is mixed or not. They have heard the word glucose and have a very vague idea of what it is. It has been represented in the public press as some dirty thing which is not fit for human food.

Q. I didn't ask you, doctor, how it was represented, as some dirty food, in the press.

A. No, but you asked me what it was understood as by the common people.

Q. I am asking you whether the common people didn't understand—didn't use this term in that way, glucose, as indicating not whether it was pure or impure, that was volunteered by you, but as to whether they didn't use it as indicating this article that we call glucose, didn't understand it to mean that?

A. The common people don't know whether it is liquid glucose or whether it is solid grape-sugar. They know the name glucose and they know very little about the substance itself. It is a newspaper word to most people.

Q. Don't you think they know it is a manufactured product as distinguished from what may be called a natural product?

A. I don't think they know anything about it. All they know is from the newspaper paragraphs.

Q. Well, what did you mean to cover when you said: "In
408 commerce, however, the term 'grape-sugar' and 'glucose' have a different meaning".

A. I mean among the people who buy and sell it, the consumers, not the people who consume it in small quantities on the table, but the people who actually buy and sell it by the quantity.

Q. I think you have already answered in substance, doctor, that nothing besides the starch goes into the finished product finally of glucose. That is the fact, isn't it?

A. Substantially, yes.

Q. You speak, doctor of it being the consensus of opinion among the most distinguished chemists of the country that this term corn syrup is a proper term to use, and then you read in connection with that answer or that testimony the names of these different persons who had given an opinion and copies of whose opinions you have in this book or pamphlet. I will ask you to state how many food control chemists now actually engaged in that work and who are engaged in assisting in the administration of the pure food laws you have in this list?

A. None. We didn't consider their opinions reliable.

Mr. OLIN: I move to strike that out.

Court: Strike out "We didn't consider their opinions reliable. Exception by defendant.

Q. You stated glucose, including dextrose and levulose, if I understood you, is present in all—nearly all of the fruits, etc.?

A. I did.

Q. What do you mean by the term glucose as you here use it in that connection?

A. I think you said that I said that the glucose, including levulose—was that the way you read it?

Q. I understand you to say that glucose, including dextrose and levulose?

409 A. Yes, that's it, that's exactly what I meant.

Q. Now, you used glucose there in what sense, the commercial glucose, or as a sugar?

A. I used it to cover both kinds of sugar but I specified each of them.

Q. Now, another term there for those two elements is what you call invert sugar?

A. Yes, when they are in equal quantities it is some times called invert sugar.

Q. And it is invert sugar that you get, isn't it, by the application of an acid or something that breaks down cane sugar?

A. Yes, you get invert sugar under those circumstances.

Q. Made up equally of dextrose and levulose?

A. Yes sir.

Q. It is a less sweet article than cane sugar, isn't it?

A. It is.

Q. So that in the manufacture of sugar, whether we call it from the maple plant or the cane, or the sorghum, or the beet, we try to prevent as much as possible the securing of invert sugar?

A. Yes, because the cane sugar brings a higher price.

Q. It's a sweeter material?

A. Yes, it's a sweeter material, and it can be rendered perfectly white and crystallized.

Q. And that is true as to the syrup, if you get a first-class cane

syrup you get a sweeter article than you get from mixing with glucose?

A. Yes, it isn't as sweet unless you use a stronger solution of glucose; if you use a strong solution of glucose, you might have more sweetness.

Q. Are you now talking of commercial glucose?

A. Yes.

410 Q. That you would get a sweeter article by using commercial glucose?

A. No, if you take a dilute solution of cane sugar and a strong solution of glucose, the product might owe its sweetness more to the glucose than to the cane sugar.

Q. Oh, yes, that is true, if you put in 99 per cent of glucose and one per cent of cane sugar, I will concede that.

A. Your question wasn't definite enough for me to answer.

Q. Aren't both dextrose and levulose you spoke of as present in the preserves produced from at some time sucrose?

A. Perhaps so, I don't know.

Q. In the plant?

A. I don't know.

Q. That is generally held, isn't it, among chemists?

A. I have heard it stated to be the case. I am not sure that it is.

Q. You do not find dextrose alone in the plant, it is always in connection with levulose?

A. Well, I have seen some statements that at some stages of the growth the sugar is exclusively dextrose in some of the fruits. I don't know how reliable those statements are.

Q. You couldn't from your own experience or investigation make any such statement?

A. No, I know that the proportions of dextrose and levulose vary; they are not always present in equal quantities.

Q. Did you say something about your having glucose in maple syrup, of thirteen per cent?

A. I did.

Q. Well, that would be regarded as a very impure maple syrup?

A. No, maple syrup that had been kept for some times, when it is kept for some time it softens and becomes semi-liquid
411 and undergoes a kind of fermentation, which I presume inverts the cane sugar and makes dextrose and levulose.

Q. It isn't in the form that we like it when we want to get fancy maple syrup, is it?

A. I wasn't talking about syrup. I was talking about sugar.

Q. I was just going to ask you what you meant by glucose, whether commercial glucose or the sugar. You meant the sugar, didn't you, or dextrose?

A. I mean the dextrose and the levulose.

Q. Not the commercial glucose?

A. Of course you couldn't get commercial glucose into maple sugar naturally.

Q. Now, it is the aim, isn't it, in the manufacture of maple sugar,

as well as in the manufacture of sorghum into sugar, or cane into sugar, to get just as little as possible of any invert sugar, or levulose or dextrose?

A. I presume in making solid sugar that would be desirable, but in making the syrup the flavor is developed in the process of manufacture. The maple juice has little or no flavor when it is tapped from the tree. The flavor which the maple molasses and maple sugar develop is developed in the process of boiling down.

Q. That reminds me of one thing. Now, you said that the cane stalk didn't have any distinctive flavor. Passing that; it is true, though, is it not, universally, that the product which you get from the cane, the syrup I mean, and the syrup you get from the maple sap, and the syrup that you get from the sorghum plant, have each their own characteristic flavor when the article is produced?

A. Yes, they are produced in the boiling down.

Q. You don't know just how it is produced?

A. No.

Q. The elements though are there somewhere that lead to those results?

412 A. Yes.

Q. And it is those characteristic flavors that give value or lack of value to it, is it not?

A. That is true.

Q. It is that characteristic flavor belonging to the maple that adds to its value, isn't it?

A. It is.

Q. That is true of the cane, isn't it? I am talking about the syrup?

A. Yes it is.

Q. And it is true of the sorghum?

A. I don't know so much about sorghum.

Q. Now, that isn't true, is it, of the product that is manufactured into the liquid form as commercial glucose from any starch?

A. No, that has little flavor.

Q. So that the only element coming from the corn in what you call corn syrup is the glucose, isn't it?

A. Well, commercially speaking, yes.

Q. Yes, I am talking commercially. You understand that?

A. Let me hear the question again.

(Question read.)

A. Yes, I answered that correctly.

Q. And that comes from the starch?

A. Substantially.

Q. The thing that gives the peculiar flavor or character to the syrup as it is put upon the market is the mixing element, isn't it?

A. It is the refiners' syrup.

Q. It is the refiners' syrup or cane syrup, or if they use maple syrup or sorghum?

A. Yes.

Q. Or molasses?

A. Or molasses.

Q. You said that dextrin may not in any proper sense be
413 a mucilage did you not?

A. I said in this connection, that it was a gross perversion of the facts to say that corn syrup was virtually composed of mucilage, because it is using a word which is really an approbrious epithet.

Q. I don't know as anybody has said just quite that—but there is dextrin in the glucose?

A. There is dextrin in the glucose.

Q. And you take that dextrin out and dissolve it in water and what have you got?

A. You might sell it for mucilage if you wanted to.

Q. You have got mucilage, haven't you?

A. You have got a solution of dextrin. I shouldn't call it mucilage.

Q. And you have got a mucilage, haven't you?

A. Well, you can call it mucilage, if you want to.

Q. A mucilage that is used, isn't it, making postage stamps at times?

A. Well, it is not made that way.

Q. Well, it would be just as good, or even better, wouldn't it?

A. I don't know. It might suffer very seriously in its quality by being put through those processes.

Q. Well, dextrin is the sticky part of the article, isn't it?

A. What article?

Q. Of the commercial mucilage?

A. Yes, dextrin is the sticky part of it—in part—there is some starch in it usually.

Q. If I understood you correctly, it was that the article here produced as a mucilage would be purer than the commercial mucilage?

A. Yes.

Q. But there would be no difference in the article except on the question of purity, would there?

A. The dextrin in the glucose has never been put through
414 a drying process, it never has been treated under the influence of a temperature of three or four hundred degrees with nitric acid, and we don't know exactly the composition of dextrin; some authors insist that it is a mixture of four different kinds of material, to which they have given names. So the commercial dextrin is made by a totally different process, by the use of different agents, different temperatures, and have been subjected to a drying process.

Q. Can you name now yourself any other difference between the commercial mucilage and the dextrin?

A. I have just mentioned a number of them.

Q. You spoke about dextrin being one of the most common articles of food, doctor.

A. I did.

Q. And you spoke of toast and the crust of bread. Will you tell me what percentage of dextrin is in toast?

A. Why, I only have one figure in my head and that is that bread-

crust contains as high as eighteen per cent of dextrin. I want to say that it always contains it, probably contains more, and sometimes less. As heat converts starch into dextrin it is quite natural that any form of starch or wheat flour exposed to heat will furnish dextrin.

Q. Would you say or do you think, doctor, in your experience and knowledge that there is over one per cent of dextrin in the ordinary toast?

A. I have seen a statement of eighteen per cent.

Q. No, take your own experience.

A. I never have analyzed it. I don't see how you could make toast tea out of an article that had only one per cent of soluble matter in it. I have drank toast tea myself when I was sick, and if the article had only one per cent of soluble matter in it, it would have been a pretty thin tea.

Q. Did you say that this toast tea was given because of the
415 ease of digestion of the product or article?

A. That was my explanation of the advantage of it.

Q. Well, why don't you give dextrose at once?

A. Well, I presume they don't keep dextrose in the family, whereas the toast is always on hand.

Q. Or cane sugar?

A. Well, cane sugar is liable to sour on the stomach of invalids.

Q. Now, a word here, doctor, as to refiners' syrup. You stated, as I understand you, that this was the product left after the filtrating or getting off the first grade of sugar, and then a second grade of sugar, and then a third grade of sugar, and then finally you got this refiners' syrup?

A. It had to be refined afterwards.

Q. And that the bone-black was used in each step in the process?

A. Yes.

Q. Now, if they had stopped with the first process, with the process which gave you the sugar number 1, and used the syrup that was obtained, then you would have had what is known as first-class syrup, wouldn't you?

A. No, they never use that for syrup.

Q. Well, if they had used it.

A. It hasn't as much flavor. It has too much cane sugar in it.

Q. Isn't it a fact that years ago they used to do that in the manufacture of sugar, cane sugar, and got a first-class article of syrup?

A. You are probably thinking of the old sugar house, sugar baker. He didn't make sugar in that way at all. He bought his raw sugar and he dissolved it and boiled it in open kettles at first, and then he only got practically one or two crops of sugar out of it, and the molasses that was left, that was so thick that it
416 would almost stand alone in cold water, that was sugar-house syrup. I visited several factories in Hamburg and Antwerp,

but they have all disappeared, and they only made that then because they couldn't do any better.

Q. I say, if they stopped there, you would get a thick, first-class molasses, wouldn't you?

A. No, you wouldn't—too much cane sugar in it.

Q. If they stopped at the second stage would they get a first class molasses?

A. No, there is still too much cane sugar in it.

Q. Then in order to get a good syrup you must go through the third stage?

A. You get more flavor, a more acceptable syrup.

Q. Well, is that the only reason, that you get more flavor?

A. I think it is, because you are concentrating the flavor all the time in the syrup, the more sugar you take out, the smaller volume, and all the flavor goes into it.

Q. How much concentration takes place in these last two processes, the second and the third?

A. It is the proportion of sugar that they get out of them, I forget how much.

Q. About how much?

A. Well, I don't like to guess at it.

Q. Is it half of the total?

A. Oh, they take out much more than half; the first crystallization often takes out sixty per cent of the sugar that is there.

Q. Half of the whole syrup I mean.

A. What?

Q. Is there that much concentration between the first stage and the end of the third?

A. Oh, there is a great deal more than that.

Q. How much is there?

417 A. I don't know. I can't guess at it.

Q. Is it three-fourths?

A. I shouldn't wonder.

Q. That is your best judgment?

A. I don't remember the figures. It depends on how the sugar house is run. It would be different in different sugar houses. And there are various different processes for handling the sugar. There is no fixed ratio.

Q. And your theory is that the flavor is due to the concentration?

A. It is, and the changes that take place during the concentration.

Q. Oh, the changes that take place during the concentration? What changes do you refer to?

A. Why, the cane juice had no flavor to begin with, and the flavor is all developed in the process.

Q. But from the end of the first process to the end of the third process what changes take place?

A. Why, the boiling takes place.

Q. But didn't you say on your direct examination, that that only resulted in concentrating?

A. Oh, no, I didn't say that that only resulted in concentrating.

Q. And that the increase in flavor was due altogether to the concentrating and not to any changes other than that?

A. No, it is due to both.

Q. Now, what are the changes?

A. I don't know what they are, but they are the changes that

make the difference between a clear, colorless, flavorless juice and the rich, colored, highly flavored molasses.

Q. Well, can you trace that from the syrup that you get at the end of the first stage through to the end of the third?

A. Each syrup has a higher flavor than the previous syrup.

Q. And that flavor is due to what?

418 A. It is due partly to the contraction and partly to changes that take place in the treatment.

Q. Now are those changes due in part to the application or use of the bone-black?

A. The only thing that the bone-black does is to take out impurities.

Q. Then you can answer the question.

A. It does not add to the flavor.

Q. It doesn't have anything to do with the flavor?

A. I don't think it does.

Q. Are you certain about it?

A. It only takes out impurities; it doesn't take out the flavor.

Q. Does it have anything to do with the change in the flavor of the article?

A. I think not. It is my opinion——

Q. Well, will you say that it doesn't and that there results in the article by reason of the use of this bone-black a large amount of ash and there is left finally in the product a large amount of salt by reason of the application of this bone-black?

A. No, that isn't true. In the first place, the bone-black don't put any salts into the sugar, and in the second place, there is not a large amount of salts in the syrup when you get through.

Q. About eight per cent isn't there?

A. No, my analysis there didn't give eight per cent.

Q. Didn't you give an analysis which showed eight per cent of ash?

A. Not cane sugar syrup.

Q. Refiners' syrup?

A. Two per cent of ash. All sugar molasses contain a large amount of ash, but cane sugar contains very little ash.

Q. Doesn't commercial refiners' syrup often run up to eight per cent of ash?

419 A. Not if it is made from cane sugar.

Q. Yes, when it is made from cane sugar.

A. I think it is impossible.

Q. If it does, what would it be due to?

A. I don't know. Probably the use of some beet sugar in the factory.

Q. Did you say that refiners' syrup was frequently adulterated with beets?

A. No, I didn't say anything of the kind. No, I said that some sugar refiners refined some beet sugar as well as some cane sugar. There is no adulteration about that. Beet sugar is as good as cane sugar. You can't tell them apart.

Q. Do you say that refiners' syrup is manufactured in any case from beet sugar?

A. I don't know. It may be.

Q. You have no knowledge on that subject?

A. I am not aware just at the present time what the sugar refiners are using. It varies with the season and with the market, and various things, the crops.

Q. What is the difference in the flavor that we find in refiners' syrup and in molasses due to?

A. You mean a distinction between refiners' syrup and molasses?

Q. Please read the question (Question read).

A. The difference in the mode of manufacture I suppose. You see we have some molasses which is——

Q. The difference in the mode of manufacture. You don't think it is due to change chemically by reason of the application of this bone-black?

A. No, bone-black has nothing to do with it. There is a difference in the mode of manufacture. There are ever so many variations of the mode, first of making raw sugar and getting the
420 plantation molasses, and, secondly, treating that afterwards and getting refinery molasses.

Q. Would it be proper to speak of molasses as having a cane flavor?

A. I think so. I think one can tell cane molasses from beet molasses without any question.

Q. Then is there any difference in your mind between what is called cane syrup and refiners' syrup?

A. There may be some commercial difference. I don't know what original difference there is.

Q. Is there any difference in the quality of the article, is one regarded equally as high grade an article as the other?

A. I don't know what they sell under the name of cane syrup.

Q. You don't know anything about that?

A. I don't know of that trade name "cane syrup". It is somebody's special brand I suppose.

Q. You wouldn't know cane syrup if you saw it?

A. I wouldn't know——

(Exhibit 12 shown witness.)

A. I don't know what that is.

Q. Do you recognize the flavor?

A. Yes it smells rummy. It probably is plantation molasses. I don't know what it is.

Q. It has a distinctive flavor, very marked, hasn't it?

A. Yes. It does not have the ordinary syrup flavor, or even the ordinary sugar-house molasses flavor.

Q. Doesn't it have the ordinary cane flavor that is incident or connected with cane syrup?

A. The only thing it reminds me of is a diluted plantation molasses made in the old-fashioned way and fermented until it contained some alcohol, it has at least an alcoholic, rummy smell.

Q. Take Exhibit- number 2 and 3.

421 A. I don't pretend to be able without making analyses to take up a thick, syrupy liquid and tell by smelling of it what it is.

Q. No, I don't ask you in that way, but there is a distinctive flavor to that, is there not, different from the first I handed you.

A. Yes, it has a different smell.

Q. And there is a different flavor to number 2 which I now hand you is there not?

A. Smell—not flavor. Flavor is taste. Yes, that has a different smell from the other two.

Q. It is the smell that gives the article its flavor?

A. No, not necessarily; not at all. Smell is not necessarily the cause of the flavor. There may be something that don't smell that has a great deal more flavor than the thing that does smell.

Q. Take the article of commercial glucose mixed with refiners' syrup, would you say that it had a cane flavor—do you think that would be proper?

A. I do. I think refiners' syrup has a cane flavor. It is a product of the sugar cane.

Q. If it was mixed with molasses would you say that it had a cane flavor?

A. If the molasses gave it a cane flavor, I should.

Q. What do you call a cane flavor?

A. It is the flavor of ordinary molasses, ordinary refiners' syrup.

Q. You make no distinction between the two?

A. Well, there are variations. Every one knows what a wine flavor is, yet there is quite a variety in the flavors of different wines.

Q. Which is the sweeter article of the two, the cane syrup or the refiners' syrup?

A. It depends on the strength, it depends on how much water they contain and how much sugar they contain.

Q. Well, evaporated in each case to the same limit?

A. If they both contain the same percentage of sugar, the
422 one that contains more cane sugar and less dextrose would be the sweeter.

Q. As ordinarily sold on the market which is the sweeter article, refiners' syrup or cane syrup?

A. I don't know what they sell under the name of cane syrup.

Q. A cane syrup, according to the standards as they have been prepared and promulgated in this circular?

A. I never heard of or saw such a syrup as that being put on the market, by boiling down the juice of the sugar cane. In all my experience I never heard or saw that being put on the market as cane syrup.

Q. You don't know if it's being advertised now?

A. No.

Q. By a leading firm here in Chicago?

A. Well, advertising wouldn't be sufficient. You would have to know how it was made.

Q. Here is an advertisement by W. M. Hoyt & Company, Chicago: "Cane syrup, light color. This is the pure article and the best that money can buy. It will keep in any climate. If you are not familiar with the qualities of straight cane syrup, you had better ask us to send samples before ordering" and gives the price per barrel, etc.

A. I don't see what that proves, except it's an advertisement.

Q. Now, just a word, doctor, as to your criticism here of the term syrup. You say that as given here on page ten "syrup" wouldn't include anything but maple syrup and molasses, I believe?

A. Not molasses.

Q. No, but sorghum. Wouldn't it also include cane syrup if that was made?

A. If it were made, yes.

Q. And it would also include the syrup if made from the stalk of corn as it is given here?

423 A. It would.

Q. Will you name any syrup that it does not include excepting this article made up of glucose mixed with a certain percentage of refiners' syrup or some other syrup?

A. Why it doesn't include refiners' syrup.

Q. Very well, we understand that is a separate thing.

A. But this is a general definition of the word syrup. It's a comprehensive word for all kinds of substances which are called syrups.

Q. And the refiners' syrup is defined right above, isn't it?

A. Exactly, and it is inconsistent with the other one, and so is number five inconsistent with the other one.

Q. I will come to that in just a moment. It's inconsistent because it has attached to it the word "refiners'" and the two taken together are stated in the standard to mean something different when "syrup" is taken alone. That is what you mean, isn't it?

A. I mean this. Syrup when described alone without any qualifying term is limited to the product of evaporating the saccharine juice of a plant to a syrup without removing any of the sugar. Now, the other things do not conform to that definition.

Q. Do you think there would be any difficulty, from your understanding of the terms here, in enforcing the law or in complying with the law on the part of the dealer by using these terms as standards as you find them here?

A. Of course you can make the dealer do anything if you have the law behind you.

Q. Well, those are simple terms: refiners' syrup is defined here plainly, isn't it, and is separated from "syrup"?

A. That's true—

Q. And sugar syrup is separated from "syrup"?

A. But the standards contradict each other.

424 Q. So that you think that all of the term couldn't be complied with?

A. No, I don't say all of them, I say the definition of syrup is a new definition. It has been created by Dr. Wiley and is contrary to the English language, contrary to commerce, contrary to usage and contrary to the general understanding and inconsistent with the other parts of the classification.

Q. Well, you have already given your definition, we won't dwell on that. You think yours is the correct definition?

A. Well, you are asking me for mine. I am not forcing it upon you.

Q. Aren't all of these syrups here characterized by having primarily sucrose in them?

A. Yes, all those that are mentioned as syrups.

Q. And in that respect they differ radically from glucose, don't they?

A. They do. They don't differ radically, because they all contain glucose. They differ in degree, but not in kind.

Q. To the extent that they contain glucose they would be regarded as inferior in quality, wouldn't they?

A. No, I don't see why they should.

Q. Are you using glucose in the sense of dextrose?

A. Dextrose or levulose, either or both.

Q. Containing invert sugar?

A. Yes.

Q. Now, to the extent that in the manufacture of maple syrup or the sugar-cane syrup or sorghum syrup you get invert sugar, you have got an article that you don't want?

A. No, I don't think so. The invert sugar is just as wholesome, just as nutritious as the other kind of sugar.

Q. Haven't you said before that it was a cheaper article than cane sugar?

A. That doesn't make it inferior, because it is easier to produce it.

425 Q. Didn't you say it was cheaper because it wasn't so sweet and that the man who made it couldn't get so much for it?

A. No, it is cheaper because it may be produced cheaper and the manufacturer can afford to sell it cheaper.

Q. It isn't as sweet as cane sugar?

A. No, but sweetness isn't all that one wants. It is as nutritious.

Q. Well, do you wish to have it left here as your opinion, doctor, that it is desirable to get invert sugar in the manufacture of maple sugar?

A. No, I don't say that it is desirable.

Q. Is it undesirable?

A. No, I don't see that it makes any difference.

Q. Then if you had a large quantity of invert sugar in maple sugar it would be just as good as the best quality of maple sugar?

A. I didn't say large quantity; I didn't say that it ever contained a large quantity.

Q. Now, isn't it true that it is desirable not to have a large quantity of invert sugar in sugar cane syrup?

A. What do you mean by sugar cane syrup?

Q. Syrup made by the evaporation of the juice of the sugar cane, or by the solution of sugar-cane concrete and containing not more than 30 per cent of water and not more than 2.5 per cent of ash. That is what I mean.

A. Sugar cane syrup.

Q. Now, I say, wouldn't it be desirable, if that is the article you are trying to get, not to have any large quantity of invert sugar in it?

A. No, for the reason that the process which makes invert sugar

makes the flavor better, no more than dissolving the pure white sugar in water.

426 Q. Was this question here nothing more than the dissolving of pure white sugar and water, was that what I read to you? I read to you subdivision 2 under "Syrups."

A. You put a question with it.

Q. Did you understand from my question that it was the dissolving of ordinary sugar in water merely when it states "made by the evaporation of the juice of the sugar cane or by the solution of sugar cane concrete."

A. Well, the sugar cane concrete is nearly pure sugar. It isn't pure white sugar, but is dissolving sugar, and it is sugar without much flavor, and consequently it would make an inferior syrup to what you would get from a refiners' syrup.

Q. Then according to your statement do I understand you to say that the value of the syrup would be in proportion to the amount of invert sugar you had in it?

A. It would follow that proportion because the process that produces the invert sugar produces the flavor, which gives refiners' syrup and molasses their attractiveness.

Q. I am not talking about refiners' syrup now?

A. Well, that is molasses.

Q. I think you gave an analysis of refiners' syrup in which you had cane sugar 34 per cent.

A. I think that was the figure.

Q. Glucose 28 per cent.

A. Yes.

Q. You didn't mean there commercial glucose, did you?

A. No, I meant dextro-glucose and levo-glucose.

Q. That don't contain any dextrin?

A. No, it don't contain any dextrin. At least I can't say what that eight per cent of organic matter might have been.

Q. Now, aren't all the syrups that are named on page 10 characterized by the absence of dextrin?

427 A. Page 10 of the standards?

Q. Yes, characterized by the absence of dextrin?

A. No sugar cane syrup, if it were made by dissolving sugar cane concrete would contain dextrin.

Q. True dextrin?

A. True dextrin. It is one of the products of inversion. You can't handle cane sugar, dissolve it, boil it down, or boil the syrup down, without producing—did you say dextrin or dextrose?

Q. I said dextrin.

A. I thought you said dextrose. Strike out that answer.

Q. My question was, aren't all these syrups that are named on page 10 characterized by the absence of dextrin?

A. They are.

Q. And that is present in commercial glucose in large quantities?

A. It is.

Redirect examination by Mr. FAIRCHILD:

Q. Will you look at this Exhibit 181 and say if you ever saw that before?

A. I have.

Q. Is glucose some times said to be used as an adulterant of food?

A. It is.

Mr. FAIRCHILD: I offer this in evidence, the first page.

Mr. OLIN: We object to it as wholly incompetent.

Court: What is the purpose of the offer?

Mr. FAIRCHILD: Why, it is to show, your honor, that the name glucose is prejudiced before the public by publications and that a misunderstanding exists among the people as to its true character.

Court: How does that bear on the unconstitutionality of this act?

428 Mr. FAIRCHILD: It will bear on it in this way, if the public has a false idea as to the character of the name with which it is required to be branded, it's a prejudice against the article, it impairs the right of the owner of it in the article. Witness after witness has testified to the fact that there is a prejudice against this article called glucose.

Court: It doesn't appear that any picture or cartoon that may be drawn in a paper is proof of the fact that such a prejudice does or does not exist. For that reason the objection will be sustained.

Exception by defendant.

Mr. FAIRCHILD: I will offer Exhibit 182 and Exhibit 183 for the same purpose, in order to get the record.

Same objection.

Objection sustained. Exception by defendant.

Q. Has sugar syrup a flavor, doctor?

A. Pure sugar has no flavor.

Q. Well, I say sugar syrup.

A. Pure sugar syrup has not a flavor. It is sweet but it has no flavor.

Q. Mr. Olin asked you and you answered that you had no food control chemists in the list of persons from whom you obtained opinions; you started to state why, but was prevented from stating. Will you state why.

Mr. OLIN: Objected to. He did state and it was stricken out.

Court: It was not responsive. He may answer.

A. I didn't go to the men who call themselves food chemists, because I knew that they were all directly or indirectly associated with Dr. Wiley, that Dr. Wiley has made an issue on this point, and that it would be useless to try to get any one of them to give
429 an independent opinion. To use a common expression, they all sneeze when Dr. Wiley takes snuff. I didn't think it would be worth while. I thought it would be time wasted. I didn't think that their knowledge of the subject was in any way superior

to that of the chemists to whom I applied, although they call themselves food chemists and some of them occupy the position of food analysts and food control chemists.

Q. Doctor, there are some German authorities, references, that I can't pronounce myself. Will you look over that part of the page and see those references there.

A. Watt's Dictionary was the first. Then there is Beilstein's.

Q. What is the name of the book?

A. Translated into English it is Beilstein's Organic Chemistry.

Q. Is there another one there?

A. The next one is, to pronounce it in English, Wagner's Hand Book of Chemical Technology, a German book. The third one is Dr. Wilhelm Bersch, "The Manufacture of Starch Sugar," translating the title. The next one is the "Imperial German Board of Food Chemists."

Q. What is that, a report, or something of that kind?

A. The Imperial Board of Food Chemists, appointed to establish official methods of analysis of food products.

Q. I ask you are you familiar with those publications?

A. I am very familiar with Beilstein. He is our most comprehensive author on organic chemistry. Wagner's Hand Book of Chemical Technology I have used in all editions ever since the first edition was published thirty or forty years ago. The next one I have never paid any particular attention to.

Q. Do you know whether those are all standard publications?

A. They are all standard publications.

430 Recross-examination by Mr. OLIN:

Q. Doctor, you stated here as your reason why you did not consult or get the opinions of the food chemists that have to do with the enforcement of the food laws that you thought that when Dr. Wiley sneezed they sneezed also?

A. When he took snuff.

Q. Well, that's a better way of putting it. Your opinion is that such men as Dr. Wischer here haven't got any independent judgment of their own on these matters?

A. I think to a very considerable degree they are bound by official ties and are not entirely free to exercise their own judgment.

Q. Don't you think they are quite as free to exercise their own judgment as a distinguished gentleman may be who is under the employ and special pay of the corporation who is vitally interested in the matter?

A. I don't think so, not when that gentleman never accepts an engagement of that kind unless his conscience tells him that it is the right and just side of the case.

Q. Well, you have devoted considerable time in that kind of service, have you not, doctor, in your life?

A. I have.

Q. Been a witness very frequently as an expert?

A. I have always been ready to speak up in any case which I believed to be just and honest.

Q. Will you state how much you have been paid by the Corn Products Company?

A. I have no objection.

Q. I wish you would state it?

A. I have received \$2,000 for the services I have rendered.

Q. And how much are your charges for the other services that you haven't been paid for?

431 A. Nothing so far.

Q. You haven't presented your bill?

A. No.

Q. You have been present during this entire trial?

A. I have.

Q. And have sat by the side of the counsel for the defendant?

A. I have.

Q. And taken a very active part in the case?

A. I have been very much interested of course.

Q. Your interest is simply in establishing the truth?

A. That's all.

Q. You don't think you have any bias or prejudice.

A. I am quite sure I haven't, because I am independent, my means are independent and I am not obliged to do this work unless it gives me pleasure and satisfaction.

Q. Certainly not, and I don't suppose the men on the other side are obliged to be food chemists unless they desire to be. Don't you think that the opinions of men employed by the departments of the various states in the enforcement of these pure food laws, who have had experience and discovered the difficulty of preventing fraud and deception, would be of any value in framing a law that should be workable to prevent such fraud and deception?

A. My sympathies are with them in their work entirely, but now and then persons engaged in work of this kind get crooked ideas of certain subjects and are not amenable to reason, and I have found my dear friend, Professor Wiley, in that state of mind. We have been intimate and dear friends for years and years, and yet when it comes to some things in connection with food he is absolutely deaf to all reason. His own colleagues have to differ with him.

Q. You regard him as a very able man?

432 A. I do, I have the greatest opinion of him and the warmest affection for him, but when he undertakes to do something which I regard as absolutely unjust to the business interests of the country, I have to take a position against him.

Q. Do you know Dr. Jenkins of the Connecticut agricultural college or school?

A. I do.

Q. Do you regard him as an able man or otherwise?

A. Yes, he is a very able man.

Q. Do you know Dr. Frear of the State Pennsylvania College—State College of Pennsylvania?

A. I don't remember ever having met him.

Q. You know of him, by reputation?

A. I have heard his name.

Q. A man who has a high standing, has he not in his profession?

A. I presume so.

Q. Do you know Dr. Scovall, Director of the Kentucky Agricultural College?

A. I do not.

Q. Do you know Professor Webber of the Ohio Agricultural College?

A. I have heard his name.

Q. You have heard, have you not, of the very hotly contested litigation at Cincinnati here this fall with reference to some whiskey adulteration cases?

A. No, I have not heard of any whiskey adulteration cases. I have heard of some whiskey misbranding cases.

Q. Yes, or whiskey misbranding cases.

A. Yes.

Q. Have you learned of the statement Judge Humphrey, United States circuit judge or district judge, made in his decision concerning these men I have been speaking of here, like Dr. Fischer and these other men, Professor Frear and Dr. Wiley?

433 A. I did not.

Q. I have here what purports to be his judgment, part of his opinion, in which he states—

Mr. FAIRCHILD: I object to the statement. That is no evidence at all.

Court: Objection sustained.

Q. Has Dr. Fischer who sits here any official connection, as you understand, with Dr. Wiley or with the department at Washington?

A. I presumed that he had.

Q. Well, you presumed without knowing then?

A. I know that all the agricultural experiment stations and the food investigating stations are more or less affiliated with Washington and that Dr. Wiley attends all their meetings and is on their committees and directly or indirectly has a large influence with them, and more than that, a large proportion of them are young men who have little experience as chemists, they have learned to make analyses and in arriving at opinions which depend on judgment and wide experience they follow the decisions of Dr. Wiley.

Q. That's the way you wish to characterize the other members of that standard committee, is it?

A. I don't wish to refer to them at all.

Q. I asked you about Dr. Fischer and you went on volunteering about other men.

A. You made the question more or less general.

Q. I asked you a simple question, whether you understood that Dr. Fischer had any official connection with Dr. Wiley or the department at Washington?

A. Not an official connection as far as I know, not an official connection.

Q. Have you gained this opinion of those men through personal contact?

A. No, through my general knowledge of what is going on in the food investigation question.

434 Q. Do you know anything about the ages of the men of that standards committee or of their experience?

A. Some of them I never heard of before.

Q. Well, Jenkins you do know?

A. I know Jenkins.

Q. Do you regard him as a young man?

A. No.

Q. He has done a little analyzing and learned how to analyze?

A. I was speaking of food chemists in general, as you used that term originally when you brought up the whole subject.

Q. I simply asked you the question as before stated and you made that kind — an answer, which wasn't called for at all.

A. Perhaps I did not have it in mind.

Recess until 8:30 A. M., January 2, 1909, at which time the trial was resumed.

435 MITCHELL JOANNES, being first duly sworn, testified in behalf of the defendant as follows:

Examined by Mr. FAIRCHILD:

Q. Mr. Joannes, where do you live?

A. Green Bay, Wisconsin.

Q. What is your business?

A. Wholesale grocer.

Q. How long have you been engaged in the grocery business?

A. From 1872 continuously to date.

Q. For a time in the retail business?

A. Yes sir.

Q. When did you go into the wholesale business?

A. About 1880 exclusively.

Q. From 1880 to the present time you have been engaged in the wholesale business continuously?

A. Yes sir.

Q. Under what firm name or what name?

A. For a period of years Joannes Brothers, afterwards Joannes Brothers Company.

Q. Do you do a large business as wholesaler?

A. They say so.

Q. Have you ever dealt in a commodity known as corn syrup?

A. Yes sir, for many years.

Q. How many years have you dealt in corn syrup?

A. For about twenty-five years.

Q. Continuously?

A. Yes sir.

Q. You went to wholesaling in 1880 you said?

A. Yes sir.

Q. In what form, beginning at the start of that business did you purchase the article in, what form of packages?

A. Barrels at first.

436 Q. Then later?

A. Half barrels, ten and five gallon kegs, and later in jacket cans and tin cans of different sizes, from two pounds up to twenty.

Q. Did you buy this article from any one particular person or firm, or did you deal with different people?

A. We dealt with the ones that we could do the best with.

Q. During those years have you dealt with quite a number of different persons or firms?

A. Several different firms, yes sir.

Q. Located where?

A. Buffalo, New York, in the beginning, Marshaltown, Iowa, Davenport, Iowa, Chicago, Illinois, and Milwaukee, Wisconsin, mostly.

Q. You say Milwaukee mostly?

A. No sir.

Q. Those different ones?

A. Yes sir, those places I mentioned are the principal cities where we bought it from.

Q. Have you dealt in it extensively, Mr. Joannes?

A. It is a very common article and the trade has grown on it, has increased highly, so that at present it's considered a staple article in the trade.

Mr. OLIN: I move to strike out what it's considered.

Court: Strike out that portion of the answer.

Exception by defendant.

Q. What I asked was if you have dealt in it during these years extensively?

A. Yes sir.

Q. Have you any particular brand of your own that has been used on cans?

A. Yes sir.

Q. Have you confined yourself to one brand, or have you had several?

437 Q. In cans mostly, two brands.

Q. What are those?

A. Clover brand and Karo brand.

Q. I show you Exhibit 154 and ask you if that is one of the brands that you have used in your business with this article?

A. Yes sir, we used that very extensively.

Q. Now, when you first began to use it did it have on it the words "With cane flavor" or just the words "Corn Syrup" there? Do you remember when these words "Cane flavor" were put on there?

A. I am not positive on that.

Q. All the rest of the label, state whether the rest of it you are sure of?

A. The Clover brand corn syrup and our name is the principal part we paid attention to.

Q. Now, I will ask you whether you always had this brand where you bought in cans from any other concern than the Corn Products Manufacturing Company?

A. We did have it from other parties.

Q. Was it the same?

A. Yes sir. It was an imitation.

Q. Always bearing the "corn syrup"?

A. Yes sir.

Q. I will show you Exhibit 155 and ask if that is the kind of label that you have used also?

A. Yes sir.

Q. Do you know about the time that first came onto the market, the Karo Corn Syrup, under that name? I don't ask you the date, but do you remember the fact of its coming onto the market?

A. Yes sir.

Q. State whether you begun to deal in it just as soon as it came onto the market?

A. We did, just as soon as it was offered to us.

438 Q. Were you dealing at that time with the Corn Products Company for a part at least of your stock?

A. Yes sir, we dealt with them and its predecessors for a great many years.

Q. How long, Mr. Joannes, would you say that you have been using this Clover brand label?

A. Six or seven years.

Q. And the Karo brand label?

A. About the same number of years.

Q. Do you sell your goods largely through traveling salesmen?

A. Yes sir.

Q. Your establishment is located at Green Bay, Wisconsin, is it?

A. Yes sir.

Q. And has been all this time?

A. Yes sir.

Q. Now, what territory do your traveling salesmen cover?

A. Drawing a line across the state of Wisconsin from Manitowoc directly west, the entire northern part of the state including the northern peninsula of Michigan.

Q. Has that been the case during all these years?

A. Yes sir.

Q. Are all of these salesmen of yours selling this syrup under these brands?

A. Yes sir.

Q. Have been since you have been using the brands?

A. Yes sir.

Q. Now, I will ask you whether this syrup is or is not a very popular article?

Objected to as incompetent, irrelevant and immaterial and as leading.

Q. Under these brands that you have referred to?

Same objection.

A. They are very popular in our business with our customers.

Q. How does the popularity of these brands compare with the other syrups, sugar syrups, so-called?

A. For the past year and a half we haven't had a barrel of what's called cane sugar syrup in our establishment.

Q. Why?

A. Because the trade on corn syrup has completely taken the place of all syrups of that kind for table purposes.

Q. Well, do you know the cause of that, whether it is because of the price or because of the quality of the article?

Mr. OLIN: Are you going to qualify him as an expert now?

Mr. FAIRCHILD: No, I am getting at his knowledge of his business.

Court: Proceed.

A. We formerly carried the two kinds of syrup, the corn syrup and the cane syrup, in samples side by side.

Q. You mean your traveling men did?

A. In our office, and our traveling men would also carry samples. The trade at the price and the quality would pick out the corn syrup. The trade on corn syrup increased so much that it finally has completely discontinued the sale of cane syrup with us. I think both the price and the quality is what did it.

Q. It is a cheaper article in price?

A. No sir. We attempted to handle an equal priced article in cane syrup and the trade would not accept it at the same price. The corn syrup, the mixture as it is on the market, seems to give better satisfaction at the same price.

Q. Have you during any of these years that you have been selling corn syrup known that article to be called in the trade by any other name than corn syrup?

440 A. Whatever it has been called——

Q. Now, you understand, Mr. Joannes, what I am talking about, is the mixed article, the article that is put up mixed for table use?

A. Since it has been known as not being a cane syrup it is represented in our purchases and sales as being a corn syrup.

Q. Have you ever known that syrup to be called a glucose mixture?

A. Not in the sale of it to the trade, to customers.

Q. Under what circumstances have you known of it being called a glucose mixture?

A. We understand from the refiners that it was a mixture of glucose and other combinations.

Q. But I mean in your trade with your own customers?

A. With them it has always been understood and represented as corn syrup.

Q. You mean that both in their ordering and purchasing and in your sale?

A. Yes sir. In their orders they would write or speak of "corn syrup" in wanting this article.

Cross-examination by Mr. OLIN:

Q. Mr. Joannes, if I understood you, you stated that you have known of this article, corn syrup, for some number of years, I forgot just the number—how many years did you state?

A. Twenty-five.

Q. That you have dealt in it that long, if I understand you rightly?

A. Yes sir.

Q. Well now, you never dealt in the unmixed article known as glucose did you—you always dealt with an article for syrup purposes?

A. We have had a few orders for glucose.

Q. But your business is selling food products?

A. Yes sir.

Q. Now, did you mean that you had been selling it to the
441 retail dealers for twenty-five years under the name and brand of corn syrup?

A. No sir, not under the brand—

Q. Well, that answers the question. What you mean is that you were selling the same article that is now known as corn syrup, but under another name than corn syrup, isn't that the fact?

A. No, sir, it was always corn syrup.

Q. Always corn syrup, I know the article didn't change, but wasn't it branded and sold under some other name, like the various names that were used for various kinds of syrups until quite recently?

A. We sold it for a great many years under brands of our own.

Q. Well, those brands were what, name some of them.

A. Golden Drip and Honey Drip. We had five or six brands of our own.

Q. Honey Drip and Golden Drip and Fancy Table Syrup?

A. Yes, and White Table Drips and Vanilla Flavored Drips.

Q. Did you name Honey Drips?

A. Yes sir.

Q. And also Cane Syrup at that time?

A. Not that, no sir.

Q. Sugar Syrup—sold it under that name, didn't you?

A. No sir, not the corn syrup.

Q. Well mixtures. Did you sell it under the name of Rock Candy Drips—do you remember that name?

A. Perhaps we carried that a little while. Not long, if we did.

Q. Now, none of those brands contained the name "corn" anywhere, did they?

A. Not for a period of years.

Q. No, not until I think you said the last six or seven years?

A. I think that's correct.

Q. Now, upon reflection, Mr. Joannes, haven't you got
442 that time a long—isn't it about not over five years that you have sold it under the name of "corn syrup"?

A. Well, we don't sell it today under the name of "corn syrup." We still retain the brands and sell it under the brands.

Q. Well, are you sure that you sell now under the brand Fancy Drips and those terms?

A. Yes sir, we have it in our stock today.

Q. Aren't you mistaken about that. Wouldn't that be contrary, as you understand, to the law of this state?

A. Not if you comply with the ingredients.

Q. Since 1905.

A. I don't understand that it's against the law to sell it as we have it marked. We requested the refiner particularly to mark it in accordance with the law and to use our brands.

Q. And putting on the percentages of the different ingredients.

A. Yes sir.

Q. You have done that since 1905?

A. And before that.

Q. But now to come back to what I was asking you about. That term "corn syrup" didn't come into use in your business until the last six or seven years, and I asked you whether you hadn't got that a little longer really than the fact is, whether it has been more than five years that you have used the term corn syrup?

A. In selling the article, as I say, we sell it today and have always sold under the brand.

Q. Well, you also use the term now "corn syrup" that you didn't used to use?

A. We always called that corn syrup.

Q. Well, on the brand?

A. Not on the package.

Q. Was it labeled that way?

443 A. It has been labeled "corn syrup" for several years past now, on the package.

Q. But not before five or six years ago?

A. It didn't used to be, no sir.

Q. Now, that was the same mixture that you sell now under the name "corn syrup" wasn't it? That is, you sell now a mixture under "corn syrup" made up of the same elements, we will say, 85 per cent of corn syrup or glucose and 15 per cent, we will say for illustration, of refiners' syrup—you sell that now, don't you as corn syrup?

A. We don't sell it any different than we have always sold it today.

Q. But you sell it with a different brand?

A. Only the word "corn" has been added to it for the past six or seven years.

Q. That is what I was trying to get at. Now that has been added?

A. It has been added, but we haven't changed selling it all.

Q. Excepting that you have that added to the brand?

(No answer.)

Q. In the labels that you use—haven't you?

A. Not on the large packages. The percentage, it shows on the packages.

Q. Now, here is a brand that I understand is gotten up particularly for your use, Mr. Joannes?

A. That is only in cans.

Q. I say in cans that are put into these packages or boxes that you sell to the retailer?

A. But we sell a very large quantity in barrels and half barrels.

Q. Well take it where you use this brand, for illustration—on that you have to the right hand, haven't you "90% Corn Syrup"?

A. Yes sir.

Q. And "10% Refiners' Syrup"?

444 A. Yes.

Q. Now, prior to some five or six years ago you never put on there, did you, any percentage of corn syrup?

A. We didn't handle that in cans until that brand came out and those marks were on there.

Q. You never handled, did you, prior to that date any article on which you put on the brand or on any label for it "corn syrup," designating any percentage, did you, Mr. Joannes?

A. Previous to the handling of those brands?

Q. I have made my question broader. (Question read.)

A. I don't think the percentage was put on until that label came out.

Q. Was the term "corn syrup" ever put on prior to five or six years ago in any of these mixtures that you sold as syrup?

A. Not on the package.

Q. Or anywhere else, as "corn syrup," that term printed or written on either the individual can or on the box in which the can was contained?

A. I don't think the words "corn syrup" was on any of the packages until we used the brands Clover and Karo.

Q. Now, I want to get this a little definite. Did you do that prior to five or six years ago?

A. That's when these brands came into use and when the percentage was put on.

Q. You never did it before that?

A. When the law obliged it to be put on, that is the time we commenced?

Q. Well, that I think is correct. Now, in all of your extensive business, Mr. Joannes, prior to that date, this article which is now labeled and sold under the name of corn syrup never had attached to it in your business the term "corn syrup" did it?

445 A. We always sold it under private brands.

Q. Well, can't you answer my question yes or no?

A. The term corn syrup was not on the package.

Q. Now, listen to the question and please answer it?

(Question read.)

A. I believe that's correct.

Q. The same mixture that you have sold these late years with that name attached to it "corn syrup" used to be sold under these other brands, didn't it, as Fancy Drips or Honey Drips or Pride Syrup, Fancy Table Syrup, sold under those various brands, was it not?

A. We don't sell these brands excepting in cans.

Q. Well, the can containing the article has on it prior to the use of the term corn syrup these other names that I have designated, had they not?

A. The cans?

Q. Yes.

A. The cans wasn't put up until these brands came out.

Q. How did you sell it prior to the time these brands came out?

A. In barrels, half barrels and five and ten gallon kegs.

Q. These kegs or barrels then were branded, were they not, under these names I have designated and not "corn syrup"?

A. They were branded with our own private brands.

Q. I don't care whether you call them private or public, they were the names I have indicated, Fancy Drips, Table Syrup, Honey Drips, those terms I have named?

A. Yes sir.

Q. And not "corn syrup" at all?

A. No sir.

Q. Now, you have stated that the competition of this article you have called corn syrup has rather driven out the cane syrup?

A. Yes sir.

446 Q. Do you think that is due in part to the extensive advertising of this article that you have seen in the newspapers no doubt?

A. Not altogether.

Q. I didn't say altogether. In part?

A. I can't say that, because our trade commenced to increase right along each year on the corn syrup from the time we commenced to handle it.

Q. Now, to be perfectly fair with you, Mr. Joannes, do you mean now these last five or six years, or do you mean back twenty-five years?

A. I mean to go back at least fifteen years, that corn syrup was commencing to get a very strong hold on the public and has been constantly increasing.

Q. Now, why do you use that term corn syrup as applying to this business fifteen or sixteen years ago?

A. Because we always bought it as corn syrup and represented it to our trade as corn syrup.

Q. Well, you didn't sell it under that name, did you?

A. The customers when they would come in, we would show them a cane syrup and we would show them a corn syrup and that corn syrup had different brands.

Q. You showed them, in other words, these mixtures that you never labeled in your own business "corn syrup" but you labeled them Fancy Drips, Honey Drips, Pride Syrup, or something of that kind, and you showed them those brands when you talked with your customers and you called it by those names?

A. We had private names also for our cane syrup.

Q. Why did you in talking with your customers designate this

article carefully as "corn syrup" instead of designating it under the brand under which you sold it?

A. We didn't do it any more than we did when we sold
447 them cane syrup, but we would explain to them why this corn syrup could be sold for less.

Q. It was a cheaper article, was it?

A. It brought the price—

Q. I mean was it a cheaper article?

A. The same priced goods.

Q. Was it a cheaper article at that time before this term corn syrup came to be used?

A. There has always been cheaper cane syrups than corn syrups, but it didn't satisfy the trade.

Q. Of the same grade or quality? Wasn't the mixture that you sold under these various names a cheaper article than the cane syrup, if you had them numbered 1, 2 and 3 in each case of the same grade, the mixture made from the corn and the other syrup, was it a cheaper article than the cane syrup, prior to the use of the term corn syrup?

A. According to the customers themselves they would select the corn syrup in preference to the cane syrup at the same price.

Q. Can't you answer my question? I ask you whether it wasn't, as far as money is concerned, a cheaper article, of the same grade?

A. Well, the grade is the distinction. The customer would decide on its face in selecting it.

Q. Has the price of that article increased rapidly or quite materially during the last five or six years, the article you now sell under the name of corn syrup?

A. It is higher priced at present than it was several years ago.

Q. Well, it has been increasing, hasn't it, especially in the last three or four years, pretty rapidly?

A. I can't say that, Mr. Olin. It has been standing steady for some time. It would fluctuate according to the corn in our watching the markets.

448 Q. Do you think the article, had it been labeled instead of "Corn Syrup" "Glucose Flavored with Refiners' Syrup," that it would have driven out or would drive out the cane syrup, if that were the way it was branded?

A. Why, I think it would result in too many questions being asked to know what that was.

Q. Yes, I understand. If the article was made up of say 85 per cent. of such as the article I show you here in Exhibit number 1, and with 15 per cent of number 2, and that was advertised to the trade, do you think that this glucose mixture, if it was sold under that term, as "glucose flavored with refiners' syrup," and those percentages put on, that it would drive out the cane syrup in the market?

A. I don't think that it would be acceptable to the trade as well as calling it corn syrup. They know what corn is and they don't know what glucose is so much.

Q. And you don't think that the trade understands that this corn syrup is made from starch, do you?

A. They understand as we represent it, that it is made from corn.

Q. Yes, you don't represent that it is made from starch, do you?

A. We think that would be wrong.

Q. I understand, but you don't represent it as being made from starch, do you?

A. No sir.

Q. You do take pains to represent that it is made from corn, don't you?

A. It is represented so to us and we call it so "Corn Syrup."

Q. It is so represented to you by the manufacturers, isn't it?

A. Yes sir.

Q. As made from corn?

A. Yes sir.

449 Q. And in all the advertisements they furnish it is so represented?

A. Well, before they advertised it was represented as corn syrup.

Q. Well, I know, but take the later years, it is represented to you as made from corn, and you represent to your customers that it is made from corn?

A. Well, the later years hasn't made any change with us at all in its representation.

Q. And you haven't understood that it was made from starch yourself?

A. No sir, I understood that it was made from corn product.

Q. And not from the starch, that would be just the same, the ordinary corn starch that they — in the laundry, or that they use for table use, you didn't understand it was made from that product, did you?

A. We didn't know just what processes it went through before it was syrup.

Q. I didn't ask you about the processes, but I asked you whether you understood—you know what starch is, don't you?

A. Two kinds, corn starch and laundry starch.

Q. You have handled it a great while?

A. Yes sir.

Q. And you are familiar with the article?

A. Yes sir.

Q. Now, you didn't understand that this very fine syrup that you have been talking about was made mainly from that article, did you?

A. Well, I didn't know how many changes it went through before it became syrup. It might be starch, it might be something else, in the course of the processes, but it originated from corn.

Q. Would it have made any difference with you if you had known that it was just exactly the same kind of an article if it had been made from potatoes instead of corn?

A. Well, if it has been made from potatoes, we should have represented them as "potato syrup."

450 Q. You would have represented it as "potato starch syrup" wouldn't you?

A. Well, that would follow, one of the changes perhaps, in changing it from corn to syrup.

Q. And you think if it was represented under the name of "starch syrup" in competition with "cane syrup" it would drive it out of the market, do you?

A. Not as good as the words "corn syrup".

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Joannes, I understand you to say that for the earlier years in which you sold this syrup, down to within six or seven years, you sold it entirely in barrels, half-barrels, kegs and kits.

Objected to as already gone into.

Objection sustained.

Exception by defendant.

Q. Did you sell any syrups in cans before five or six years ago?

Objected to as having been already gone into and improper cross examination.

Objection sustained. Exception by defendant.

Q. When you stated that in your trading with your customers from the time that you commenced to deal in this article until it came out in cans bearing labels, that it has been bought and sold as corn syrup, state whether it was so represented to your customers by you and from your customers to you?

Objected to as already gone into.

Objection sustained.

Exception by defendant.

Q. You stated, in answer to a question of Mr. Olin's, that if this article were branded "glucose 85% and 15% refiners' syrup" that it wouldn't sell as well as it would sell under the name "corn syrup flavored with refiners' syrup" in the same proportion. What

451 did you mean by that?

Mr. OLIN: I object to that. It is plain enough what he meant. Objection overruled.

A. We have always represented it as being a corn syrup and if we changed the name why there would be a whole lot of questions to know why we changed the name, and in that way it would hurt the trade.

Q. Well, is there anything in the word glucose that would affect it?

A. Why, I should say so. I shouldn't think the word glucose filled the name so completely as the word corn.

Q. Well, do you know whether the word glucose is commonly understood among such a class of customers as you have in your trade?

Mr. OLIN: Objected to as calling for something that I don't think it is shown that the witness knows anything about.

Objection sustained.

Exception by defendant.

Q. Mr. Olin asked you if the name corn syrup was attached to the sales you made six or seven years ago. You answered no. What did you mean by the word "attached"?

Mr. OLIN: I object to that. That wasn't in the first place, the question that I put. I asked him first whether it was used in connection with the individual can, or in connection with the box afterwards, and he answered broadly "the can".

Mr. FAIRCHILD: Yes, you used the word "attached" there, and the witness evidently understood that he meant attached to a can or something.

Court: He may answer.

A. Attached as being on the package.

452 Recross-examination by Mr. OLIN:

Q. Glucose, you understand, is perfectly well understood among dealers in food products as to what it is?

A. You mean storekeepers?

Q. Yes. Such gentlemen as yourself?

A. Well, those that deal in it, we deal in it a little, and consequently we are expected to know more than the retailer who don't deal in it, or consumers who don't know what it is.

Recess until 9 A. M. December 31, 1908, at which time the trial was resumed.

453 W. F. SCOTT, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. What is your business, Mr. Scott?

A. Food inspector for the state.

Q. Have been for how long?

A. Since December 1905.

Q. You are familiar with what has been designated here as corn syrup and the different brands put out by the Corn Products Company?

A. Yes sir.

Q. You also are familiar with similar mixtures that are put out by other firms?

A. Yes sir.

Q. In what part of the state especially?

A. In the southern part of the state.

Q. Do you know what the fact is under what name or label these different mixtures are sold now in the part of the state that you are familiar with aside from the Corn Product- Company's brands?

A. Yes sir.

Q. Under what name are they sold?

A. They are sold as "glucose flavored with refiners' syrup".

Q. That is, as glucose mixtures?

A. Yes sir.

Q. You have observed that, have you?

A. Yes sir in some instances.

Q. Do you also know whether this brand that has been spoken of here as Golden Glory is being sold at the present time by the retailers?

A. It is.

Q. Exhibit 37, did you get that yesterday morning here from one of the dealers?

A. Yes sir.

454 Cross-examination by Mr. FAIRCHILD:

Q. Did you state that the article is being sold now in the state by the Corn Products Company as glucose mixture?

A. No sir, I didn't state that.

Q. What was your statement?

A. I said that there were products sold on the market as glucose mixtures other than the Corn Products Company.

Q. Where?

A. In the city of Madison here. Also other cities in the state.

Q. What other cities in the state?

A. Why, you can find them in Milwaukee.

Q. Who sells them in Milwaukee?

A. Durand & Casper of Chicago.

Q. Do you —since when—how long they have been selling them?

A. Why, I can't tell exactly the time.

Q. Since the law of 1907 was passed?

A. Yes sir.

Mr. OLIN: We don't contend that it goes back of that under that name.

Mr. FAIRCHILD: The sale of the article under the name of "glucose mixture"?

Mr. OLIN: I shouldn't state that. I meant "glucose flavored with refiners' syrup". You remember some of the brands were changed under the law of 1905, there is evidence that there was written on it "glucose mixture", so my statement ought to be limited to "glucose flavored with refiners' syrup" or with "cane syrup".

Q. You say that this Golden Glory brand is being sold now?

A. Yes sir.

Q. Where?

A. In the city of Madison.

455 Q. By more than one grocer?

A. Oh yes, by a great many grocers.

Q. How have you found it throughout the state?

A. Why, I find it so very extensively.

Q. How long have you known of its being sold very extensively?

A. For the last three years.

Q. They sell other brands I suppose too?

A. Yes sir.

Q. Do they, of corn syrup?

A. Yes sir.

Q. What other brands?

A. Karo.

Q. Is that being sold very extensively over the state?

A. Yes sir.

Q. For the last three years?

A. Yes sir.

Q. How much before that?

A. I couldn't tell you.

Q. You haven't been in the business longer than that?

A. No sir.

456 H. C. LARSON, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Larson, do you know what the fact is as to the sale of this article that we have been talking about here, "glucose mixed with refiners' syrup" etc., under what name it is being sold now aside from the products put *put* under the brand of the Corn Products Company?

Mr. FAIRCHILD: I want to object to the testimony, I might have done it as to the other witness, that it is incompetent and immaterial as to under what name this product may have been put out by some dealers since the passage of the law of 1907.

COURT: For what purpose is the testimony offered?

Mr. OLIN: That is the same as we had up once before.

COURT: With Mr. Piper?

Mr. OLIN: Yes, and one other witness.

COURT: It may be received.

Exception by defendant.

Mr. OLIN: The same as we had before, to show that this article was being sold and the law was being complied with, that it was perfectly feasible to do so, except by this company.

Mr. FAIRCHILD: You don't mean every other company, do you?

Mr. OLIN: Why, so far as I know in the state.

Mr. FAIRCHILD: By some companies you mean.

Mr. OLIN: Well, that is my information.

A. Yes sir.

Q. I hand you here a can marked by the reporter 156 and ask you to state whether that is one of the cans put out by Gould, Wells & Blackburn?

A. Yes sir.

457 Q. And it is labeled what?

A. Labeled "Glucose flavored with refiners' syrup".

Q. The top of it being "Morning Glory Brand"?

A. "Morning Glory Brand".

Q. And that has the percentages, hasn't it, of "90% Glucose"?

A. And "10% of Refiners' Syrup".

Mr. OLIN: We offer the Exhibit in evidence.

Mr. FAIRCHILD: I make the same objection that I did to the admission of the testimony.

Court: Received subject to the objection.

Cross-examination by Mr. FAIRCHILD:

Q. Where did you buy this, Mr. Larsen, Exhibit 156.

A. At Bliss Brothers, down on the corner of Broom and West Doty streets.

Q. In Madison?

A. Yes sir.

Q. That is the extent of your knowledge of the sale of this article?

A. No sir, it is sold at a great many places, merchants in the city, grocery men.

Q. The merchants selling the other brands also, corn syrup?

A. In some cases. I think in one case yesterday I found where they were selling the Golden Glory brand.

Q. Do you know that the same parties are not selling in both cases, or do you?

A. In this particular case?

A. No, in the cases in town here?

A. Yes sir.

Q. Do you know that some are selling this brand, Exhibit 156, and not selling the others?

A. According to their statement they are not. They stated 458 to me that they were not.

Q. This brand of Golden Glory, is it sold extensively here in the city?

A. Yesterday I called on twenty-one grocery men. Seven out of the twenty-one were handling the Golden Glory.

Q. Some of them handling none at all?

A. No sir, they were all handling either one or the other.

Q. I suppose your department has been quite active in warning grocery men in the city of Madison not to sell in violation of the law, haven't you?

A. No sir.

Q. Do you know that your department, hasn't been?

A. Not of my own knowledge I don't; I haven't.

Q. Are twenty-one all the grocery stores in Madison?

A. No sir.

Q. How many grocery stores would say there were in Madison?

A. I haven't the data at hand. I couldn't tell you.

Q. Had you any reason for not visiting the balance of them?

A. Yes sir.

Q. What was your reason?

A. I didn't have the time yesterday.

Redirect examination:

Q. Did you call on the larger dealers, grocery stores?

A. Yes sir.

Q. In the more central part of the city?

A. Yes sir.

Q. You didn't select any particular number?

A. No sir.

Q. As I understood you, seven of the twenty-one were selling the Corn Products Company's brands?

A. Seven were selling the Golden Glory.

Q. I thought you said corn syrup.

459 A. The Golden Glory brand of corn syrup. Two of those number were out of the goods, but had ordered and expected it in yesterday, and said they had no reason to believe they didn't get it. Only five had it on hand.

Q. But you included the other two?

A. Yes sir.

Q. Do you know whether any of these other fourteen were selling other brands of this company?

A. I think one, I didn't take the data, but I know one was selling the Karo brand.

Q. One of the fourteen others?

A. Yes sir, as I recall it now.

Q. Do I understand the other thirteen were not selling this mixture under the name of corn syrup?

A. I didn't take the data to be definite, but in the majority of cases they were selling it as "glucose flavored with" whatever the flavoring was.

Q. You were asked whether you hadn't been industrious, or the department in threatening a number of people here in the city to obey the law. You said you hadn't yourself?

A. No sir.

Q. Do you know what the policy of the department has been on that?

A. Yes sir.

Q. What is it?

A. It has not been to threaten the dealers in any way in that respect.

Q. You were instructed in that way, were you not, by the commissioner?

A. Yes sir.

Q. And not to give or attempt to give to the dealers any interpretation of the law?

460 A. No sir.

Q. And what reason do you know actuated or was the cause of this instruction?

A. Mr. Emery has always held to me that the question of interpretation of the law etc. is for the court.

Q. Well, on the question of your not threatening any one?

A. Why, with reference to this particular case the threat came to us in fact, I saw the letter myself, on the part of Gould, Wells & Blackburn—

Q. Well, I don't think you ought to go into that, just leave that out. My point was, why, if any reason, was given to you by the

department or your chief officer there, Mr. Emery, why you shouldn't make any threat of that kind.

Objected to as immaterial.

Objected sustained.

Recross-examination:

Q. Did you say you had called on only one grocer here in town that sold Karo Corn Syrup?

A. No sir, one dealer out of the fourteen was handling the Karo yesterday. I didn't take the data, and I couldn't say definitely.

Q. You don't know how many in town here are handling Karo, do you?

A. I do not, no sir.

Q. This Golden Glory, do you know how many are handling that brand?

A. If I recall now, with the exception of the one, the fourteen were handling the Morning Glory, seven were handling the Golden Glory.

Q. What is this Morning Glory?

A. "Glucose flavored with refiners' syrup" as I recall the label, put out by Gould, Wells & Blackburn.

Q. Do you know who manufactures this Morning Glory?

A. Not of my own knowledge, no sir.

461 Q. Well, is it put up here for somebody here in town?

A. It is put up for Gould, Wells & Blackburn.

Q. Is that the gentleman who was on the stand yesterday?

A. Yes sir.

Q. Is this the only brand that was being sold here in town, the Morning Glory brand, of this glucose mixture I mean?

A. That is all the brands that I have recollection of now sold as "Glucose flavored with refiners' syrup". There are other glucose mixtures, molasses, etc.

Q. But they are all put up for Gould, Wells & Blackburn, are they not and they distribute them?

A. My recollection is as you state it, yes sir.

Q. Well, has this brand been approved by your department?

A. I don't know anything about that.

Redirect examination:

Q. Just a question, I don't know whether you understood or not. Do I understand you to say that all these glucose mixtures that are now being sold under the name of glucose mixtures, that is, "glucose flavored with any other syrup or any syrup" are they products of this Corn Products Company or put out by them, or are there other companies or dealers that are putting up this product?

A. There are other dealers putting out this product. I answered that question relative to that particular brand.

Q. What other companies, while you are on that, that you know of, are selling this mixture under the name of glucose flavored with cane syrup or refiners' syrup etc.?

A. The products are being distributed from other parties, but I can't give you definitely now the names.

Q. Franklin Mac Veagh?

A. I think Franklin Mac Veagh is putting out a brand in the state quite generally, but I wouldn't be positive whether or not Reid Murdock & Company is not putting out one also.

462 Q. How about Durand & Casper?

A. Durand & Casper are, yes sir.

J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, do you hold any position now with reference to the State and National Association of Food and Dairy Departments?

A. Yes, sir.

Q. What position?

A. I am president of that association.

Q. You were elected at the meeting at Mackinac?

A. Yes sir.

Q. You have been a member of this association for how long?

A. I joined the association at the first in St. Paul in 1903 and I have attended all the meetings since except the one at Portland, Oregon.

Q. You have heard, have you not, of the hearing before the secretary at Washington, Secretary Wilson, together with the other two secretaries, some time after the standards were fixed that have been referred to in June, 1906?

A. Standards fixed by the association, do you mean, or by the secretary?

Q. No, that were fixed by the department upon the recommendation of the committee?

A. Yes sir, I have general knowledge of that.

Q. Do you know whether the national association you have referred to, of which you are now president, was in any way consulted at the time of that hearing?

A. I was not.

Q. Or was given any opportunity to be heard?

463 A. I was not.

COURT: Are you referring to the hearing that preceded the ruling by the three secretaries?

Mr. OLIN: Yes, and ended in that ruling.

Q. You are not a member, are you, of the Association of Agricultural Chemists?

A. No sir.

Q. You are not a chemist at all?

A. No sir.

Q. Were you present at the meeting at St. Paul of the association that you are now president of, in 1903?

A. Yes sir.

Q. Did you hear the paper delivered at that meeting by Dr. Wagner?

A. I did.

Q. Perhaps I didn't ask you this question, Mr. Emery. You stated as to the legislature of 1905, and were familiar with the legislation, I think, of 1907?

A. Yes sir.

Q. And you are familiar with the national pure food act?

A. Yes sir.

Q. Was there some discussion about there being any inconsistency between the national pure food act and the legislation of Wisconsin as it stood in 1905 on the question of the proper labeling of mixtures?

A. Yes sir.

Q. Well, now on that question of mixtures I wish you would state what the discussion was.

A. The Wisconsin law on glucose mixtures requires that the products be labeled—

Mr. FAIRCHILD: I object to that as entirely immaterial.

Mr. OLIN: The law shows for itself. There is nothing harmful about that. That is just simply preliminary.

Q. Go on.

Court: Just state the discussion.

Mr. FAIRCHILD: Where was this discussion?

A. The discussion was in my office, and the discussion was also before a committee of the legislature.

Mr. FAIRCHILD: How can the defendants be bound in any way by discussions occurring in Mr. Emery's office about the construction of the law.

Mr. OLIN: No, it isn't the construction of the law.

Mr. FAIRCHILD: Well, you asked if there was any conflict.

Mr. OLIN: Well, not that there was any question as to the construction of it, but that they should be changed in a certain way so as to cover these mixtures.

Court: Well, is anything competent except the fact that there was such a discussion?

Mr. OLIN: Well, I think the law will supply the rest.

Q. There was a discussion on that subject?

A. Yes sir.

Q. Now, will you state what that in substance was.

Mr. FAIRCHILD: I object to it as incompetent and immaterial.

Court: He may state it subject to the objection. I will later consider whether it may have any bearing on the case.

Exception by defendant.

A. It was contended there by representatives of the Wisconsin Wholesale Grocers Association, and Chicago dealers, that under that statute they couldn't bring into the state those mixtures lawfully under the national law and they desired the law so that they could lawfully come in the state. This they held under a ruling of At-

465 torney General Bonaparte that in cases of mixtures or compounds the names of all the mixtures should be included in the label, and they sought a law that would allow them to come into the state and not be in conflict with the national law as interpreted and administered by the board of food and drug inspection.

Mr. FAIRCHILD: I ask that that be stricken out as incompetent, irrelevant and immaterial. These defendants can not be bound by any statements that was made of the desire of anybody that the law should be this way or that way, or by anybody's interpreting the law.

Court: My present impression is that the testimony should be stricken out, but it may stand subject to the objection and the motion.

Exception by defendant.

Cross-examination by Mr. FAIRCHILD:

Q. What office did you say, Mr. Emery, Mr. Ladd of North Dakota held in connection with the national association?

A. Last year he was president of that association and the year preceding he acted as president, having been vice-president; the former president's term of office having expired he ceased to be a member of the association and Mr. Ladd took his place as president.

Q. Was he a member of any committee acting upon the so-called standards?

A. He was by vote of the association made the chairman, as I recollect it, of the committee. On standards, did you say? What standards do you refer to?

A. Standards adopted or said to have been adopted by this national association; state and national food commissioners.

A. At the Mackinac meeting, Dr. Ladd, president of the association, by vote of the association was made chairman of the committee on preparing a state food law bill to adopt and use the standards adopted at that meeting, as I recollect it.

466 Q. Was he connected in any way with the action of the association at Jamestown in regard to standards?

A. He was not a member of the standards committee, as I recollect it, no sir.

Q. Well, the same standards, were they adopted at Mackinac?

A. As adopted where?

Q. As were adopted at Jamestown?

A. My recollection is that the standards that were adopted at Jamestown were readopted with possibly a slight change, I can't swear positively in regard to that, and some additions.

Q. Well, were there any changes made in that part of the standards relating to glucose?

A. Over those adopted at Jamestown?

Q. Yes.

A. My recollection is not.

Q. But Mr. Ladd did serve at Mackinac on the committee?

A. No sir, I don't say that. There are so many standards committees that we have to be careful and don't confuse them. The standards committee of that association and the joint association of agricultural chemists is one committee on standards, of which Dr. Ladd, as I understand it and as I recollect it, has never been a member.

Q. Well, I understood you to say that he was chairman of the committee at Mackinac, wasn't he?

A. Of what committee?

Q. On standards.

MR. ORIN: You have got confused. He was on the committee, as I understand, perhaps chairman of a committee, that had entrusted to it the duty of preparing a uniform food law to propose to the legislatures that are to meet this coming year, and that committee has proposed this bill, a copy of which we have produced.

Q. Well, he was at the Jamestown meeting was he not?

467 A. Yes sir. He presided at the Jamestown meeting.

Q. Was he there presiding at the time the standards were adopted?

A. Yes sir.

Q. Well, was there any discussion at that time on the standards or on any particular standard, or were all the standards presented and acted upon as an entirety?

A. My recollection is the report was considered and acted upon as an entirety, at the Jamestown meeting.

Q. There are several hundred different standards, so to speak?

A. I can't state the number.

Q. But you would say that was true, would you not, it was a very extended document?

A. Well, in one sense it is. I couldn't give the number; I wouldn't undertake to give the number.

Q. You stated that that was adopted unanimously?

A. That is my recollection. There was no opposition to it, no vote against it, as I think I stated.

Q. Well, is Mr. Ladd a chemist?

A. Yes sir.

Q. He is commissioner of North Dakota, is he?

A. He is the food commissioner of North Dakota.

Q. Has he always taken a prominent part in the proceedings of the national association?

A. He has always been considered a very strong member of the association.

Q. And was he actively concerned in any way in this proposal that a committee be appointed to prepare a uniform state food law?

A. My recollection is that that recommendation came in his report.

Q. Recommendation of the Macinac meeting?

A. That is my recollection. I can't swear to it positively, but that is my recollection.

468 Q. Will you please look at Exhibit 157 and state whether you have seen that before?

A. I have no distinct recollection of it as a separate document. I presume that I have seen it in my office and studied it.

Q. State what that is?

A. This is what I understand to be the bulletin on the food laws of the agricultural department of the college of North Dakota.

Q. And including what as headed there?

A. Food and Drug Laws. I can't say that I have any recollection of this special bulletin, but I think I have received it. I have received his bulletins as I have received the reports and bulletins of other commissioners, but that that distinctly made an impression I have no recollection.

Mr. FAIRCHILD: In addition to what Mr. Emery read follows: "Food and Drug Laws." Then follows "The pure food law amended and reenacted, and pure drug law amended and reenacted." "Rulings and discussions by E. F. Ladd, Chemist and Commissioner."

Q. Have you ever noted his discussion of the question of syrups and molasses and glucose?

A. In his report?

Q. Yes.

A. I don't think that I have. I remember he stated to me once that he sustained my position.

Mr. FAIRCHILD: I will offer in evidence this document, calling particular attention to what occurs on page 18, "syrup, molasses" etc. under that head.

Mr. OLIN: We object to it as wholly irrelevant and immaterial, and the witness is not here.

Court: What is the purpose?

Mr. FAIRCHILD: Mr. Ladd, as is shown, was in this meeting in Jamestown, and the standards as adopted, so far as they relate to glucose, do not give any synonymous name or synonym for that word, but simply denominate it "glucose" and he has just stated that Mr. Ladd endorsed his position. Now, Mr. Ladd in this discussion here specifically names this article in this way, not only as a syrup, but as "corn syrup."

Court: It may be received.

Mr. OLIN: The objection to this is that it is made by an outside party. We haven't in any way sought to show anything other than it turns out that he was upon these committees. Now, if they wish to show that he holds a different view, I think they ought to produce him as a witness. If they did, we would be able to show an examination of Dr. Ladd that he has changed his views decidedly since he issued this bulletin, and that those views that he expressed there in that bulletin are not his views today. That bulletin was issued before the Jamestown meeting and of course a year or more before the Mackinac meeting. He, like many others, has gained new light since that time.

Court: I have adopted rather a liberal policy in letting all this come in.

Mr. OLIN: We will have to be permitted to follow it up and show what his present views are, by his admissions.

COURT: The ruling may stand.

Mr. FAIRCHILD: I will read this right into the record. "Glucose syrup or corn syrup is a product of the action of acid on starch and it must be free from acids or sulphites."

Q. Do you know whether this bulletin number 6 has ever been revoked by any other publication?

A. I couldn't testify to that. I have made no special study of Mr. Ladd's bulletins on those points.

Q. You were present, were you, at the time that Dr. Wagner delivered his paper before the Jamestown meeting on corn syrup?

A. Yes sir.

470 Q. You have heard it?

A. Yes sir.

Q. That was reported in the proceedings of the meeting, was it?

A. Yes sir.

Q. You have seen the printed volume of the proceedings, have you?

A. Yes sir.

Q. You have seen in that volume, haven't you, Dr. Wagner's papers?

A. Yes sir.

Q. I show it to you on page 340 of this publication, if you will just look at that, and I ask you whether that is it?

A. Yes sir, that is his paper.

Q. Did you hear any objection made at Jamestown by anybody to the use of the word corn syrup as applied to this article?

A. Without the proceedings before me I can't recollect to answer that.

Q. I am referring to the proceedings that were had at the time?

A. I don't think the paper was discussed.

Q. You made a statement, did you not, in regard to why the Corn Products Company didn't want to use on their labels the word glucose?

A. Without the report before me I can't recall my statement. I have been in a number of those meetings and I can't specifically recall it.

Q. Didn't you state at that meeting, to be found on page 344 of this report of the proceedings: "I remember at one of our meetings one of the men who represented the Corn Products Company said, one reason among others for not coming out with the word "Glucose" on their labels was because of the prejudice among the people against it. They had a prejudice against it, and so the glucose people didn't use that word on their labels."

A. Well, that statement has been made to me and I presume I made that statement?

471 Q. This, Mr. Emery, is where I was reading from, right there, (showing book to witness).

A. I think that is substantially correct.

Q. Well, you said at one of your meetings, what meeting did you refer to?

A. One of the meetings of the representatives of food men now in my office relating to the labels for these products.

Q. This meeting was held at Jamestown, when, do you remember, July 1907?

A. I think so.

Q. Previous to the holding of this meeting of this association at Jamestown the Wisconsin legislature had passed the act of 1907, hadn't they?

A. Yes sir.

Q. That was July 13th?

A. Let me see, this Jamestown meeting was 1907?

A. Yes, July 16th to 19th, 1907, and the legislature had then passed the law of 1907?

A. Yes.

Q. Now, when was this meeting in your office that you referred to?

A. My recollection is that it was in the fall of 1905, the same time when those labels were delivered to me. That's my recollection of it.

Q. Were you discussing the law of 1905?

A. At that time, yes. That's my recollection. I am giving it according to my best recollection.

Q. Your discussion hadn't any reference to the law of 1907?

A. Not according to my recollection, no sir. I think that that paragraph will bear out that interpretation.

Q. That is, you think it refreshes your recollection?

472 A. Yes sir, I think the context will show that to be correct.

Q. Do you know who that representative was?

A. As I said on the stand the other day, I am not positive about it. My recollection is that Dr. Wagner came to me at one time, and I think that Dr. Wagner is one of the persons, but I can't swear to that positively. There has been too many men in my office.

Q. Dr. Wagner made a statement there, didn't he, in connection with your statement, that the Corn Products Company had corrected the labels that they were putting out?

A. Dr. Wagner in a conversation with me admitted the statements that I——

Q. No, just wait a moment. Dr. Wagner stated there in that convention, did he not, or meeting of the association, following your statement, that the Corn Products Company had corrected the labels that they had put out before, such as Honey Drips and the others that you have referred to on the witness stand, and that all manufacturing concerns were attempting to put out honest labels and complying with the law.

A. That is my recollection——

Mr. OLIN: Let me suggest, Mr. Fairchild, you are taking a good deal of time. I don't think it is proper, but I won't object to your reading the whole of that discussion, beginning on page 344 and ending on page 345; that will show the exact situation.

Q. And you stated, did you not, in answer to the short statement

made by Dr. Wagner that the report as made by him was very gratifying?

A. If those things were true, yes.

Q. Well, it was a fact, was it, that Dr. Wagner held out the idea that those labels were put out by the predecessors of the company that he was then representing?

A. Yes sir, he represented that.

473 Q. And that his company was trying to correct that, and that was the statement to which you made the response that that report was very gratifying?

A. That was the way I understood it, that he was speaking of the company he was representing, and that my remark was that if those conditions were being changed, it was very gratifying to learn it.

Q. And you understood that the company he was representing at that time was this Corn Products Refining Company?

A. Well, that company has changed so often that I confess I don't know exactly who it was or when it was?

Q. Now, were the labels that were being used under the law of 1907 presented to you for approval by the agents of the Corn Products Company, Manufacturing Company or Refining Company, whichever it happened to be at that time?

A. I don't think I quite understand your question now.

Q. Were the labels that were being used in their business in Wisconsin by the Corn Products Manufacturing Company or the Corn Products Refining Company under the law of 1905 brought to you for your approval as an official of the state?

A. The question was opened by different jobbers through correspondence and following the correspondence and discussion various labels came to me for consideration.

Q. I will ask you if you had presented to you Exhibit 131 for your approval as an official of the state?

Mr. OLIN: Now, that there may be no misunderstanding, you don't contend, do you, that any of these labels were submitted to Mr. Emery for his approval after the law of 1907 was passed?

Mr. FAIRCHILD: No, 1905. That is my question.

A. My recollection is that it was a label of this kind, after discussion and when others had been rejected, was presented for my approval and that it was approved, or the statement was made
474 that the product under that label under the law of 1905 would not be contested by the dairy and food commissioner.

Q. Was this Exhibit 154 presented to you for consideration and approval and did you not approve it?

A. I don't think the label in this form was presented to me for approval in 1905.

Q. Was it presented to you in any form substantially like that which included the words "corn syrup"?

A. I presume—now, not saying that I remember this specifically you understand, but it's entirely probable that this label was presented without the words "with cane flavor", if it was presented after the law of 1905, it was approved. There was certainly no guaranty

under the food and drugs act. The label as you handed it to me was not approved by me in 1905.

Q. This label now contains "with cane flavor."

A. That was not on it.

Q. And "Guaranteed under the food and drug act of 1906."

A. That was not on it.

Q. That would indicate then that it was presented to you for your approval prior to June 30, 1906?

A. Well, I have no distinct recollection, but I think it was, and I am willing to say that if it had been I should have approved it, I wouldn't have thought of bringing a prosecution on that.

Q. You are not certain, are you, that it wasn't presented to you, even after the law of 1906, the federal law?

A. I am sure that label in that form never came to me for approval.

Q. But a label like that with "corn syrup" on it was, you think, approved by you?

A. I think so.

Q. Was this Exhibit 155 presented to you for your approval, and did you approve it?

475 A. I can bring some labels from my office that I can swear to, but I don't want to swear to these, that I can't recognize or compare them with those in my office.

Q. Then I will ask you this, have you approved a label bearing the words "Karo Corn Syrup", indicating that it was produced by the Corn Products Refining Company of Davenport, Iowa?

A. Now, will you let me see this other Exhibit. May I make a statement to the court?

Court: Certainly.

A. There is a number of questions in this law of 1905, it involves the type, the size of the type, the color of the type, and I cannot recall here these labels that come to me, whether they had all these forms of type. Many of these labels came to me that had the "glucose mixture" or "corn syrup" with a statement of the percentages in the type prescribed and were approved of course of necessity. This "corn syrup with cane flavor" as I recollect it does not comply with that and I don't think any in that print or style ever came to me? (Referring to Exhibit 154.) This Kairomel Corn Syrup, I don't think that label came to me in that form. I don't think the type here is in accordance with the terms of that law.

(Last question read.)

A. Now about whether it is Corn Products Company of Davenport, Iowa, I couldn't tell that. I tried to find out from Mr. Wagner in relation to that, I insisted under the statute it required the true name of the producer on the label. I approved it subject to an investigation showing that those were the real proprietors and they agreed to make it sure—

Q. That's all then.

A. Now, I want to make one more statement, I want to state the truth here—that Karo Corn Syrup label, if it came to me and met my

approval, must have had the type, the percentages of either
476 corn syrup or glucose and of cane syrup or refiners' syrup,
and I made the approval subject to the test in our laboratory
confirming the truthfulness of the statement.

Q. Now, Mr. Emery, I didn't ask you that question. Just please
confine yourself to my questions. I asked you if you approved a
label with the name "corn syrup" on it. That is all I asked you.
Now, did you or did you not?

A. I have tried to answer that question.

Q. I ask you now if you did.

A. I did subject to those conditions.

Q. I will present to you or show you Exhibit 138 and ask you if
you approved a label like that?

A. No sir, not in that form.

Q. Did you approve a label bearing the words "Rex Corn Syrup"?

A. Probably I did, if it had the other letters on it, or the other
portions of the requirements of the law.

Q. Well, you were presented a label for an article purported to
have been manufactured by the Corn Products Manufacturing Com-
pany.

A. Well, whatever I found to be on the label as the proprietor or
the producer I approved, I can't swear what they were.

Q. I will ask you if you had presented to you a label like Exhibit
139 and whether you approved it?

A. Not in that form, no sir.

Q. In what respect?

A. That lacks the percentages stated in the type required by the
law.

Q. You did approve, did you, a label of Santee brand corn syrup?

A. Yes sir, having the other requirements of law on it.

Q. That is, you mean later the requirements of the law was com-
plied with?

A. The requirements of the law of 1905.

477 Q. Yes, that is what I mean. I will show you Exhibit 142
and ask you if you approved a label like that?

A. Not in the form it is presented here, no sir.

Q. I suppose you refer now to the type?

A. That doesn't contain all the requirements of the law of 1905.

Q. In what respect do you mean?

A. It lacks the percentages in the type required by that law.

Q. Yes, in the size of the type?

A. And the color of the type. It was not only size, but color.

Q. Did you approve a label "Atlas Corn Syrup"?

A. My recollection is that I did.

Q. That was made to comply with the law?

A. Yes sir.

Q. I call your attention to Exhibit 141 and ask you if a label
like that was presented to you for your approval?

A. Not in the form it is there or in the words it is there.

Q. What do you mean?

A. I mean the words "with cane flavor" was there, and that it
was lacking the other requirements of the law.

Q. In what respect?

A. In the lack of the size and the color of the type giving percentages, that I recall especially.

Q. Now, I will ask you if you approved a label for "Crescent Corn Syrup, Produced by the Corn Products Manufacturing Company"?

A. Not as presented there. Yes, I did approve of a label under that general name.

Q. That was afterwards corrected?

A. That was made to have the type and the statements required by the statute of 1905. Now, I wish to make one additional statement, if you please, that when these were presented to me the statement was made that if these upon analysis in our laboratory were found to be true to label, there would be no contest made on 478 the part of the dairy and food commissioner. I would like to make another statement in that connection.

Q. Well, Mr. Olin will probably give you an opportunity to. Can you give us approximately, Mr. Emery, the date when these labels were approved by you that I have called your attention to as being put out by the Corn Products Manufacturing Company?

A. Well, the discussion of that began, as I recollect it, in July of 1905 and continued quite indefinitely. Probably the bulk of the correspondence and the conferences were had before the 1st of October, 1905, when the law, as I recollect it, took effect. That is my general recollection of it.

Q. The law took effect in October?

A. That is my recollection of it. I am giving it according to my best recollection.

Q. That is, you think that these labels that you referred to were all fixed up and prepared to your satisfaction before the law went into effect?

A. Well, no, I think that there was labels came to me after the law went into effect.

Q. And that I called your attention to?

A. Well, I wouldn't say that. My recollection is that preceding October of that year, that in the main these labels as you have presented them and the answers given as I have indicated took place before the first of October.

Q. Well, the state of Wisconsin had no so-called pure food law, did they, affecting glucose or corn syrup, prior to the act of 1905.

A. I think it did. I think that our general statute, as amended by the legislature of 1903, affected that product in its provision where it required that the exact character and composition should be disclosed on the label.

Q. Well, the food department of the state didn't interest itself, did it, in the matter of labels before the act of 1905 was adopted?

479 A. I don't understand your meaning of the words "didn't interest ourselves in the matter of labels".

Q. I mean take an active interest in trying to have labels, so far as ingredients were to be stated, to comply with any statute that you thought had effect on the subject?

A. Why, yes sir, the state didn't have what you may call a label law, but the law did require that certain articles, to escape being adulterations, should disclose their true character and condition. That was the amendment of 1903, and we did take an interest in that proviso of that law.

Q. I didn't mean take an interest in it, I meant actively interest yourself in seeing that the law was complied with in that respect?

A. Yes, we did. Of course the department at that time was small in number, we were crippled, but we had worked along those lines, as I think my report will show.

Q. Well, you were not up to the time the law of 1905 was enacted particularly well informed, were you, as to the extent to which this product known as corn syrup or glucose was being sold in the state?

A. We learned that mixtures of sorghum with glucose—

Q. Now, Mr. Emery, that isn't my question.

A. I don't think that our attention had been given particularly to corn syrup up to the time—beginning somewhere in 1904.

Q. Well, was that immediately before the legislature of 1905 met?

A. I can't answer that distinctly. I had one food inspector and he was doing what he could in the market, and the question of corn syrup was not the question we had received our specific information on, it was the question of other mixtures that we thought were falsely labeled and fraudulently being sold.

Q. I am confining my examination to corn syrup. After the law of 1905 was passed you very actively concerned yourself in 480 its execution, did you not?

A. Yes sir. I had a force of ten people at it. At the same legislature a force of ten people were added to the commission to help enforce the laws.

Q. So as to help carry into execution this law?

A. Well, all of the food laws.

Q. And you required the labels that were being used after the act of 1905 went into effect to comply with that act?

A. Yes sir, to the best of my ability as an officer.

Q. You stated in answer to a question by Mr. Olin that Dr. Wagner and Mr. Host and Ira B. Smith came to you for a general approval of labels. Was that the time that you refer to, before the law of 1905?

Q. My statement was not that they came together. My statement was that I could remember that those men came to my office. A good many food men came there; I can't recall who they were, my office was almost besieged at times, and I can't undertake to remember who they were, but I remember those men calling at different times.

Redirect examination by Mr. OLIN:

Q. I think you said, Mr. Emery, that Dr. Ladd presided at the Jamestown meeting?

A. Yes sir.

Q. To refresh your recollection as to whether there was any discussion here following the paper of Dr. Wagner on corn syrup, be-

ginning at page 340 and ending on page 344, I am handing you the same copy of the book Mr. Fairchild handed you, entitled "Association of State and National Food and Dairy Departments, Jamestown Co-vention, 1907", and after the end of the paper on page 344 there is headed, isn't there, "Discussion".

A. Yes sir.

481 Q. Now, there is in that discussion a portion of what you said was read?

A. Yes sir.

Q. On page 344?

A. Yes sir.

Q. There had been a remark first by Dr. Wagner to the effect that a reputable manufacturer would not sell glucose under the name of these Louisiana products?

A. Yes sir.

Q. And you replied "Are there any disreputable ones doing it".

A. Yes sir.

Q. And that was followed by a reply from Dr. Wagner?

A. Yes sir.

Q. And then came what you said, and did you say just preceding what Mr. Fairchild read, as follows: "I want to make a statement right here. I have had some experience in this matter: We got a law passed controlling the sale of this glucose, and it brought to my office certain representatives from Chicago, and they were putting on the market mixtures like Old Pride Sorghum and a lot of fancy names like that. Those mixtures had only about 15 per cent molasses in them to my certain knowledge. One was, I think, "Pure Louisiana Molasses" and that wouldn't go in Wisconsin. When the Corn Products Refining Company say they didn't put a syrup out in Wisconsin like that, I know it isn't so. I know they did". That preceded, didn't it, what Mr. Fairchild read?

A. Yes. But I made one mistake in that statement. I made a mistake in the quantity of molasses.

Q. There was in some of them larger?

A. In the molasses were 40 per cent I think.

Q. Then there followed some remarks, did there not, by a man named Dr. Irion in which he said: "I am reminded by this
482 discussion on glucose, of a railway accident which occurred in Louisiana some years ago. Louisiana, gentlemen as you well know, is the place where 'Pure Louisiana Molasses' is supposed to come from. There is a firm of molasses manufacturers in one of the northern cities of the state which sells its product in nearly every state of the Union. Its producer is advertised as Pure Sugar-house Molasses, or Syrup, and it even goes so far as to put the names of the plantations on the label in order to convey the impression that the molasses was made and put up on these plantations. On one occasion a freight train was wrecked near the town, and the largest individual claim for damages, as a result of this wreck, was one from the 'Pure Louisiana Molasses' factory for five bursted tank cars of glucose".

A. Yes sir I remember that.

Q. That was a part of the discussion?

A. Yes sir.

Q. And then there was a further reply by Dr. Wagner that your attention has been called to, that whatever might have been the practice of the predecessors of his company, like the Davenport Refining Company, sending out labels like Honey Drips, etc. their company didn't do it?

A. That is correct.

Q. Now, that was the discussion following his paper, wasn't it?

A. Yes sir.

Q. Does that report show this, immediately after that: "President Ladd: The next paper on the program is one on the 'Need for Uniform Standards among the States and between the State and Federal Government', by Hon. A. F. Hitt, State Dairy, Food and Oil Commissioner" and so on?

A. Yes sir.

Q. And then following right along after that, page 347 of the same session, was the report of the Food Standards Committee?

483 A. Yes sir.

Q. By Dr. Richard Fischer, Chemist, dairy and food Commission, Wisconsin?

A. Yes sir.

Q. And then follows the report, doesn't it?

A. Yes sir.

Q. And on page 378 there is the following, isn't there:

"Mr. EMERY: I move that the report of the Committee on Food Standards as just read by Dr. Fischer be adopted by this association.

Mr. ALLEN: I would like to amend that motion so that the committee as at present constituted be continued.

Mr. EMERY: Yes".

Then another motion was put in, then: President Ladd said, "Yes, it would", referring to another motion. "Is there any further discussion on this? If not, the motion should be seconded". Then follows: "The motion was seconded and unanimously carried". That refers to the adoption of these standards?

A. Yes sir.

Q. Something was asked you further about this discussion of these food standards. The record shows that the only discussion, if you call it a discussion, was on the corn syrup, was it not?

A. I think so, yes sir.

Q. Do you know what the fact is however, as to the general circulation of the so-called Circular No. 19 prior to this meeting at Jamestown?

A. It was generally circulated.

Q. Had that attracted considerable attention?

A. Yes sir.

Q. Throughout the country?

A. Yes sir.

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Q. Among food manufacturers and dealers in food?

A. Yes sir.

Q. Now, you are acquainted with Dr. Ladd?

A. Yes sir.

Q. And this was read to you as his bulletin, that it went out from his department, "Bulletin Number 6, April 19, 1907." Glucose syrup or corn syrup is a product of the action of acid on starch, and it must be free from acids or sulphites." Do you know whether it is the present opinion of Mr. Ladd that this article should be named corn syrup?

Mr. FAIRCHILD: I object to that as incompetent and immaterial. That would be simply hearsay testimony.

Mr. OLIN: This is all hearsay, I think.

Mr. FAIRCHILD: This is an official promulgation, and if he changes his opinion as an officer he should correct it in the same way.

Court: He may answer.

Exception by defendant.

A. Why, Dr. Ladd stated to me that under the laws as they were in North Dakota, he didn't feel it the most important thing for him to take up the subject of this corn syrup or glucose, but that in his judgment it should be labeled and the proper name for it is glucose.

Q. Now, you have had furnished you, have you not a copy of the proposed act or law recommended for adoption by this committee appointed at Mackinac?

A. Yes sir.

Q. Of which Dr. Ladd is chairman?

A. Yes sir.

Q. Is the document which I hand you now the copy which you have received of that proposed act?

485 A. This is a copy that I received by mail from Mr. Faust, a member of that committee; I think he is the secretary of that committee, but I am not sure.

Q. On page 16 at the bottom—I have paged this for convenience of reference—is the heading "Syrups" isn't it?

A. Yes sir.

Q. And the subdivision 1 is as follows: "Syrup is a sound product made—"

Mr. FAIRCHILD: I want to object to this. Do you offer it?

Mr. OLIN: Yes, we offer it.

Mr. FAIRCHILD: I want to see it before you read it into the record. (Handed to defendants' counsel.)

WITNESS: Your honor, may I make one explanation of an answer I made?

Court: Do you want to change or correct an answer?

WITNESS: I think I do, if I can get the answer and the implication, it relates to what may be said as approval of Dr. Wagner's discussion. If it is to be understood that my remarks meant that I approved of their selling that under the name of corn syrup in

Wisconsin, that is not my meaning. What I meant to say was that the selling of it under the true name, rather than the selling of glucose under the name of sorghum, Louisiana molasses, Fancy Table Syrup, etc., was very satisfying, very gratifying. That is what I meant to say.

Mr. OLIN: I make an offer first of the subdivision under "Syrups" of subdivision 1, at the bottom of page 16 of this proposed law.

Mr. FAIRCHILD: I object to this as incompetent, irrelevant and immaterial, and specifically. Of course this has no authority, this proposed bill, it doesn't speak the view of any legislature at all, and they are offering to put in here as evidence against these people what somebody proposes to propose to the legislature—some
486 legislature—don't know that it may ever be proposed to any legislature. But here is an attempt to establish an arbitrary name for a household word, to give an arbitrary significance to a household word, and to attempt to limit and confine the meaning of a household word that's used everywhere to designate a thing in common understanding and common parlance that means something altogether different from this, and to attempt to fix an arbitrary, scientific name upon a word of ordinary significance to the people.

COURT: What is the purpose of the offer?

Mr. OLIN: The purpose of this offer is to meet the proof that was introduced by the other side to show the opinion, I suppose of Mr. Ladd as to what he understood the meaning of the word corn syrup, and we wish to show that the same gentleman at a later date, acting as chairman of this committee, has recommended as the correct definition or standard these terms.

COURT: You introduce it wholly then as bearing upon the effect that is to be given to the bulletin issued by Mr. Ladd?

Mr. OLIN: Yes, it means that.

COURT: If for that purpose, it may be received.

Exception by defendant.

Mr. OLIN: "Syrup is the sound product made by purifying and evaporating the juice of a sugar producing plant without removing any of the sugar."

We next offer in evidence the second subdivision under the general head of "Molasses and Refiners' Syrup" on page 16.

Mr. FAIRCHILD: I make the same objection, that it is incompetent, irrelevant and immaterial.

COURT: Let me ask what is the purpose of the offer?

Mr. OLIN: It is the same.

Objection sustained.

Mr. FAIRCHILD: I want to make my objection in full, that
487 this definition of "refiners' syrup" as it is offered is in direct conflict with the definition of "syrup" which has already been given.

Mr. OLIN: The next is the definition which we offer of "Glucose" at the top of page 18, being subdivision 2 under the head "(b) Glucose Products."

COURT: I don't see how that is material for the purpose which you suggest?

Mr. OLIN: Why it covers the other branch of this term "corn syrup."

COURT: I take it your only purpose here is to simply show the weight that shall be given to this bulletin so far as it uses "corn syrup" as a term that is proper. Now, I don't take it that there is any conflict as to what glucose is, and that is not involved in that bulletin.

Mr. OLIN: Well, I interpreted it that it was, because corn syrup covers those two elements, we all agree on that, namely, glucose and the refiners' syrup or flavoring, whatever it is, that is put in. I think that this proof is really all in in this way: the proof as it now stands from Dr. Fischer is that this proposed bill contains the same definitions that were contained in the food standards adopted at Washington in 1906, readopted at Jamestown in 1907, and again adopted at Mackinac in 1908, so perhaps I am wasting my time here.

COURT: His testimony was that so far as the glucose products were concerned, syrups, that he had compared it, and it was just the same.

Q. I think you testified that your attention, if called at all prior to 1905 to corn syrup, didn't make much if any impression upon you?

A. Yes sir.

488 Recross-examination:

Q. When did Mr. Ladd tell you that he thought the proper name for this article was glucose rather than corn syrup?

A. During conferences with him at Mackinac.

Q. After or before his bulletin was put out?

A. This bulletin you refer to?

Q. Yes.

A. Well, now do you refer to this bulletin that you offered?

Mr. OLIN: April, 1907.

Q. April, 1907.

A. This was in August I think that we were at Mackinac.

Mr. OLIN: 1908, wasn't it?

A. 1908, yes.

Q. Were you speaking to him with reference to the execution of their law in North Dakota as to what he was going to require?

A. I don't know as I can recall how much of that was involved farther than his view as to the proper name for this product.

Q. Did I understand you to say that he said that he wasn't paying much attention to that particular subject?

A. I understood his attitude to be this, and also I think in our conference in Madison last fall, that his attitude had been that he took the law as he found it there and didn't consider that that matter was a matter of such importance as the bleaching of flour and

some other things that he was giving attention to, but he considered that glucose was the proper name for that product.

Q. Well, did you talk with him with reference to the decision of the three secretaries, as to whether he proposed to abide by that decision in the execution of their law?

A. I don't know that anything was said specifically on that subject. I can't swear to that.

Q. Would you know his signature?

A. I think I would.

489 Q. Will you look at that and see whether that is his signature.

A. I think that is Dr. Ladd's signature.

Q. Did you say anything to him about his attitude or your attitude with reference to the decision of the three secretaries approving the name "corn syrup"?

A. I don't quite understand your question.

(Question read.)

A. I can't swear whether I did or did not.

Q. You don't remember any discussion on that subject between you at all?

A. I don't remember any specific discussion.

Q. Well, how could you discuss that question in regard to the proper name of glucose without discussing it?

A. Well, we may have discussed it, I can't say whether we did or whether we didn't. I can't swear that I did or I didn't.

Q. You have seen the letter heads I suppose of Dr. Ladd?

A. That purports to be the letter head of Dr. Ladd.

Mr. FAIRCHILD: Well, in connection with his testimony, Mr. Olin, I will offer in evidence this letter, Exhibit 159.

Objected to as immaterial and hearsay.

Objection overruled.

Mr. FAIRCHILD: I will read it into the record:

"North Dakota Agricultural College.

Office of E. F. Ladd, Food Commissioner.

FEBRUARY 19, 1908.

Corn Products Refining Co., 2 East Madison St., Chicago, Ill.

DEAR SIR: I am in receipt of your favor of the 17th giving the ruling rendered of Secretaries Wilson, Cortelyou and Strauss with regard to the term 'corn syrup.' We shall accept the ruling

490 of the United States if the products are further properly labeled as *as* to comply with the requirements of our state law, viz., with regard to the name of the manufacturer or producer and amount contained in the can."

Q. Have they a law substantially the same as our law of 1905 or 1907, either one of them?

Mr. OLIN: Objected to as not the proper way to prove any law.

Objection sustained.

Exception by defendant.

C. J. DEXTER, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live, Mr. Dexter?

A. Milwaukee.

Q. What is your business?

A. Wholesale grocery.

Q. How many years have you been engaged in the wholesale grocery business?

A. Since 1880.

Q. Continuously?

A. Yes sir.

Q. What is the name of your firm?

A. Roundy, Peckham & Dexter Company.

Q. What is the territory that during that period you have covered in your sales?

A. We have covered Wisconsin, part of Minnesota, part of Illinois, and part of Michigan.

491 Q. I will ask you if you have any official connection with the Wholesale Grocers Association of Wisconsin?

A. Yes sir.

Q. What is that connection?

A. I am president.

Q. Do you sell your goods usually through traveling salesmen?

A. Yes sir.

Q. How many traveling salesmen have you?

A. Twenty-eight.

Q. State whether in making the sales you go to all parts of the state of Wisconsin, take in all of the towns in the state, practically?

A. Yes sir.

Q. Do you know an article of trade called corn syrup?

A. I do.

Q. Have you ever dealt in it?

A. Yes sir.

Q. How many years have you known it and how many years have you dealt in it?

A. Personally I bought and sold it directly for six years. Previous to that I had known it for a good many years.

Q. How many years has your firm dealt in it?

A. I think ever since we have been in business, or at least since I have been in the business, since 1880.

Q. Do you know of that article being known by any other name in the trade than corn syrup?

A. I don't recall it, sir.

Q. State whether you have bought it and sold it under that name?

A. Yes sir.

Q. And have your salesmen sold it direct to their customers under that name?

A. Yes sir.

492 Q. And in what kind of packages did you sell it?

A. I think in barrels at first.

Q. Afterwards in——

A. Barrels and cans.

Q. Afterwards in cans?

A. Yes sir.

Q. And still continued to sell it in barrels?

A. Yes sir.

Q. When did you first begin to sell it in cans, if you remember?

A. To the best of my recollection, it is six years ago, certainly six years.

Q. You said you sold it in Michigan as well as in Wisconsin?

A. Yes sir.

Q. Do you remember of the law in Michigan some years ago requiring the branding of this article as "glucose"?

A. I think I do, yes sir.

Q. In selling it in Michigan did you have a different brand from what you did in Wisconsin?

A. Yes sir.

Q. While that law was in force?

A. Yes sir.

Q. Did you afterwards change your branding even for Michigan?

A. Yes sir.

Q. Did you change it to "corn syrup"?

A. We changed it "corn syrup."

Q. Have you ever since that time maintained that name?

A. Yes sir.

Q. Have you sold this corn syrup under any particular brand?

A. Yes sir.

Q. I refer now to the cans?

A. Yes sir.

493 Q. I show you Exhibits 162 and 163 and ask you if you sold syrup in cans under those brands?

A. Yes sir.

Q. These are the Golden Glory, Corn Syrup and the Cupid brand. For how many years have you sold the article under those brands in cans? Exhibits 162 and 163 hereto attached and made a part hereof.

A. We have sold the Cupid brand I think about five years. The Golden Glory, for a longer period, I couldn't say exactly.

Q. Have you always kept in close touch with your customers?

A. Yes sir, in a way, through our salesmen and in other ways.

Q. From your knowledge of syrups and the sale of them to the consuming public for table use, state whether the consumer would recognize this article that you call syrup as a syrup?

Objected to.

Objection overruled.

A. I should say they did.

Q. You would say they would.

A. I should say they would, yes sir.

Q. State whether it is about the consistency of other syrups that you sell?

A. I think so.

Q. And resembles it in appearance?

A. Yes sir.

Q. And in taste?

A. Yes sir.

Q. Do you know of anything about the article itself as an article of trade which would deceive a customer in calling it syrup?

Mr. OLIN: Objected to. That, I think, is a matter for the court to infer from the evidence.

Objection sustained.

Exception by defendants.

494 Q. State whether these brands of corn syrup have or have not been a very popular selling article?

A. They are popular.

Q. Have been since you first began to sell it?

A. Yes sir.

Q. Do you know of other wholesale grocers in the state handling this same article?

A. I do.

Q. During practically the same period that you have handled it?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. I think you said, Mr. Dexter, that you have been selling under certain brands for five or six years?

A. Yes sir.

Q. Those brands contain the name "corn syrup" with certain other designations?

A. Yes sir.

Q. I don't understand that you sold these mixtures prior to that date under the name of "corn syrup"?

A. As I recollect it, yes sir, we did.

Q. The separate cans labeled as "corn syrup."

A. Just as those labels read.

Q. Prior to five or six years ago?

A. The glucose label has been for a much longer time before that. The Cupid label has not been, by us. The Cupid label has only been in existence I think about five years. The other has been longer.

Q. Well, the Golden Glory is a brand that was gotten up, wasn't it, labeled by the Davenport Company?

A. One of the refiners, I don't know which one.

Q. It was not gotten up for you especially?

A. No sir.

495 Q. You had nothing to do with that?

A. No sir.

Q. Now, aren't you mistaken, Mr. Dexter, as to the time that that brand has been in use with the words "corn syrup" on it?

A. I think not.

Q. Have you any records with you?

A. No sir, nothing with me; only my recollection.

Q. You are familiar, are you not, with the legislation in this state of 1905?

A. Somewhat.

Q. Prior to that time these mixtures had been sold, hadn't they, under various names like Fancy Syrup, Honey Drops, Pride Sorghum?

A. Yes sir, I think so.

Q. Rock Candy Syrup?

A. I think largely in barrels.

Q. Well, also in cans?

A. Yes, I presume every concern had its own labels.

Q. And it wasn't unlawful to sell them under those brands?

A. No.

Q. Now, let me see if I can't refresh your recollection. Wasn't it substantially after this legislation took place that the use of the "corn syrup" came in?

A. I think not, sir. To the best of my recollection, we sold "corn syrup" before that.

Q. But it wasn't for a very long time before that first legislation, was it?

A. I think so.

Q. Well, about how long?

A. That I couldn't say without the records.

Q. You can't give us any idea?

A. No sir, I can't give you any idea.

496 Q. But you do know these glucose mixtures have been sold for a long time under these various names?

A. Yes sir.

Q. They never had been sold as "glucose" had they?

A. Well, not to my knowledge.

Q. Unless it was in some state where it required it? I think you said something about Michigan having a law. They did have a law at one time?

A. Yes sir.

Q. And while they had that law you complied with it?

A. Yes sir.

Q. And continued to sell your product in that state, but branded it "glucose"?

A. Yes sir, whatever their law was.

Q. You were asked whether in your opinion the purchaser, that is, the consumer I take it, from the retail dealer, would recognize this article when sold as a syrup?

A. To the best of my knowledge he would, yes sir.

Q. You answer that he would?

A. I believe so.

Q. Do you think if the article were sold in the form of Exhibit

number 1 that the purchaser would recognize it as a syrup without any explanation made?

A. Well, I couldn't say as to that, sir. We have.

Q. I am just asking your opinion.

A. I couldn't say. It may be so and it may not be.

Q. That isn't the question. The question is whether if a purchaser came into a retail store and called for a syrup and that was handed out to him he would recognize it as a syrup?

A. Well, I couldn't say as to that.

Q. Well, what is your best judgment?

A. If I had to judge on it, I would have to taste it and see
497 what it was.

Q. Now, does he taste these other syrups that he comes in and buys as a rule?

A. Many times. If they haven't, they have tasted it before they buy them.

Q. They generally buy them on the appearances?

A. I presume so, but so far as the can is concerned they never see the syrup until the salesman shows it to them.

Q. But you understand they know what the color is of the syrup generally?

A. I presume they do, yes sir.

Q. And if they were handed out an article of that color you don't think they would buy it?

A. We have sold syrups as light as that (Exhibit 1).

Q. What syrup?

A. Rock Candy syrup, almost white.

Q. Rock Candy Syrup?

A. Yes sir.

Q. Well, that would be exceptional, wouldn't it?

A. Well, it is sold all the time regularly. We always carry it in stock and sell it.

Q. Sold it uncolored?

(No answer.)

Q. Now, if you will taste that, there is nothing bad about it, Mr. Dexter, I will ask you then to state whether they would?

A. (After tasting liquid) Well, I don't know whether I could sell the syrup or not.

Q. It is pretty doubtful?

A. I couldn't tell you.

Q. Well, what is your best judgment?

A. They might sell the syrup.

498 Q. It would be a pretty poor grade.

(No answer.)

Q. You don't really think now, do you, Dr. Dexter, from that taste that that would sell to the public as a syrup for table use?

A. It has a syrupy taste; it isn't as strong as some I have tasted, but it has a syrupy taste.

(Exhibit 5 shown to and tasted by witness.)

Q. Quite a difference between those?

A. That is a stronger syrup than the other, yes sir.

Q. You would have no doubt but what they would buy that as a syrup?

A. Yes sir.

Q. Well, taste Exhibit 160. What would you say as to that?

A. (After tasting). I would say that was a syrup.

Q. Now, there is a very great difference, isn't there between 160 and number 1 that I handed you?

A. Yes, one is much milder than the other.

Q. You know what glucose is?

A. Yes sir.

Q. You have seen it and handled it?

A. I have seen it, but never handled it.

Q. That is, the glucose in number 1?

A. I don't know whether it is or not. I couldn't tell you.

Q. Couldn't tell whether it was or not?

A. No sir, unless I had glucose to compare with it.

Q. Now, isn't it your judgment that the difference between number 1 and number 160 is in the other element that is added to number 1?

A. It is a stronger syrup than the other, if there is a mixture, I don't know whether there is a mixture or not.

Q. Assuming that there is 85 per cent of number 1 in number 160 and 15 per cent of cane syrup added, it is the added syrup from the outside, the cane, that gives the character, doesn't it, to these mixtures?

A. It gives the strength undoubtedly.

Q. Well, it gives the peculiar flavor?

A. Not knowing enough about glucose—I don't know enough about glucose to say.

Q. Well, you do know about these mixtures?

A. I know something about them, yes sir.

Q. You have dealt with them since 1880?

A. Yes sir.

Q. You have dealt in them since that time?

A. Yes sir.

Q. Now, isn't it your understanding, Mr. Dexter, that the thing which gives to these different mixtures their characteristic is the particular syrup that is mixed in with the glucose?

A. The syrup that's mixed in makes a very great difference in the taste of the syrup, I know that.

Q. Well, you understand they are made up largely of glucose, don't you?

A. Yes sir, they say so.

Q. Well, that is your understanding in handling them?

A. Yes sir, certainly; the label says so and I understand it so.

Q. And it is your understanding, isn't it, that it is the article that is known as cane or sorghum that is mixed in with the glucose that gives these mixtures their characteristic flavor?

A. It gives the flavor, certainly.

Q. It is that which enables them to sell their syrups, isn't it, to your knowledge as a business man?

A. Why I suppose that is so.

500 Q. And it is your opinion, isn't it, that you would have very little sale for the unmixed article?

A. I never tried that. Of course I don't know.

Q. You never even have tried that?

A. No sir.

Q. You understand that is a cheaper article, isn't it, glucose, than these mixed articles?

A. I suppose it is, I don't know anything about the glucose part of it.

Q. You said that these different brands that you spoke of you found to be popular?

A. Yes sir.

Q. And that there is a demand for them?

A. Yes sir.

Q. That popularity and that demand is due, is it not, to this syrup that is put into the glucose?

A. Well, I suppose so. I couldn't say that it is positively so, because I don't know that. I suppose it is true.

Q. You say that these mixtures that have been sold under these brands of Golden Glory and other brands, Cupid, and so on, as corn syrup, resemble other syrups—you were asked if they did and you answered that they did, did you not?

A. Yes sir.

Q. You know, do you not, Mr. Dexter, that that which makes them resemble other syrups is the putting in to the glucose some of these other syrups?

A. Some of them, yes sir, not all of them, at least I didn't understand so.

Q. Well, a mixture.

A. You said rock candy wasn't a syrup.

Q. Rock Candy, I don't mean if it was unadulterated with glucose. If you sell Rock Candy as a white syrup, that don't contain glucose, does it?

501 A. Some times—I am told—I don't know.

Q. There is a syrup, isn't there, known as Rock Candy Syrup?

A. Yes sir.

Q. Now, that would be very sweet, wouldn't it, if it was mixed with glucose?

A. It ought to be sweet, yes sir.

Q. Have you sold that mixed or unmixed?

A. I think both ways.

Q. Usually mixed?

A. It used to be mixed, but not lately.

Q. Not lately?

A. We don't sell Rock Candy Drips any longer.

Q. You couldn't do that under the law?

A. No sir.

Q. That is the reason you stopped it I suppose? That was quite a taking name, wasn't it?

A. Originally, yes sir.

Q. As well as this Honey Drips—that was also quite a taking name?

A. Well, all those names are taking I suppose in a way.

Q. And aside from the name, the thing that made them taking as syrup was the cane syrup or sorghum or maple syrup, whatever it may be, or molasses, that was mixed in with the glucose, wasn't it?

A. Well, I should say it was, but of course never having eaten any myself, I don't know.

Q. I hand you a letter which I will have marked as an exhibit, Exhibit 164, and I ask if that was a letter written by your firm to Mr. Emery as dairy and food Commissioner?

A. Yes sir.

Mr. OLIN: We offer it in evidence as a part of the cross-examination.

502

MILWAUKEE, 9-2-'5.

Mr. J. Q. Emery, Pure Food Commissioner, Madison, Wis.

DEAR SIR: We have a lot of glucose syrup which is composed of glucose and cane syrup, but the percentage printed on the label is not in accordance with the law, which takes effect October 1st. Can we have stickers made to comply with the law as to the size of the letters, figures, etc., and paste them on the labels as they are now? If we can do this, it will save us a tremendous amount of labor and expense, otherwise we would have to re-label all our cans, and we have a large stock of goods. If this will answer we can have our stock arranged with comparatively small expense, and should be very glad to have your ruling on the subject.

Respectfully,

ROUNDY, PECKHAM & DEXTER CO."

Q. In answer to one of counsel's questions you stated, I believe, Mr. Dexter, that you had always sold this article as corn syrup?

A. If I may be allowed to explain, my recollection of that letter is that we knew it was a glucose mixture, that is, glucose in the syrup, and the label was contrary to the law, the percentages, etc. My recollection of it is we asked for stickers for the purpose of overcoming that deficiency. I may be mistaken, but that is my impression.

Q. You describe it, do you not, in the letter as a "syrup made up of glucose and cane syrup mixed together?"

A. We knew it was glucose and as such it was sold all over the country at that time.

Q. You didn't refer to it at all as corn syrup?

503 A. No sir, not in the letter, but I don't recall that it was labeled anything but corn syrup, but it did contain glucose and we were not allowed to sell glucose labeled as that was, I mean glucose syrup, labeled as that was.

Q. You spoke of these two elements?

A. Yes sir, because we knew there was glucose in it.

Q. That is, you knew glucose wasn't corn syrup?

A. Well, I didn't know that, no.

Q. Well, how did you happen to know it was glucose?

A. Because glucose was very commonly spoken of and used in connection with it, as well as corn syrup, and there was at the time a question as to whether glucose should be used or not.

Q. Wasn't there more of a question whether "corn syrup" could be used?

A. Yes, that is the way I meant. There was a question with the commissioner about it and we asked simply for an instruction on that subject.

Q. Now, I think, Mr. Dexter, you are mistaken and I will call your attention to a fact and see if it doesn't correct your recollection. Now, don't you know that under the law of 1905 you were permitted to use the term "corn syrup"?

A. I don't recall it, no sir, not without refreshing my memory.

— Now if that is the law, would that fact not change your recollection of the facts?

A. No, my recollection of the fact, I don't recall that we have ever sold glucose syrup as such.

Q. No, I don't mean that, but my point is that you didn't sell them as "corn syrup" but sold them under these other names?

A. My impression is we have always sold them under "corn syrup."

Q. That you always have?

A. Yes sir.

504 Q. What, since 1880?

A. As long back as I can recollect. I wouldn't swear positively back that far, because my recollection don't go that far without refreshing it.

Q. Were you putting on the label "corn syrup" as well as "Honey Drips"?

A. No sir, we didn't put any labels on.

Q. Well, did you do that at any time, combine the two?

A. I didn't put any labels on.

Q. Did you sell goods labeled "Honey Drips" and "Corn Syrup"?

A. No sir.

Q. Did you sell goods labeled both "Pride Syrup" and "Corn Syrup"?

A. We never sold any Pride Syrup that I know of.

Q. Pride Sorghum?

A. We are selling today now Pride Sorghum.

Q. Well, you don't label it Corn Syrup also?

A. No sir. It is sorghum mixture.

Q. When you say that you have always sold this article that we are talking about here, corn syrup, you don't mean, do you, Mr. Dexter, that you have sold it under the name of "corn syrup" always?

A. So far as the can syrup is concerned, I think we have always sold it that way.

Q. Well, is that the last five or six years?

A. Yes sir.

Q. You don't mean to go back of that then?

A. Not in can syrup.

Q. Did you ever use the label Corn Syrup prior to the selling of this product in cans?

A. My impression is, without being positive, I would have to refresh my memory on that subject, that the barrels we sold it
505 in before were branded "Corn Syrup". That is my impression.

Q. You have no record of it, have you?

A. No sir, I don't know whether I could produce it or not.

Q. Was that brand particularly gotten up for you?

A. No sir, I think originally it was gotten up by the factory.

Q. Then you bought prior to five or six years ago mainly your product in barrels?

A. Parmelee Company, Detroit.

Q. That was a glucose manufacturer, wasn't it?

A. So-called I suppose.

Q. That was his name, so advertised?

A. I don't know. I didn't buy the syrup at that time.

Q. Now do you mean to say that that glucose establishment sent out any of the mixture at that time in barrels?

A. Yes sir.

Q. Marked "Corn Syrup"?

A. I think so. That is my recollection.

Q. You don't know?

A. I wouldn't be positive, but that is my impression.

Q. You haven't looked up anything recently to refresh your recollection to see whether you are wrong about this?

A. No sir, I am speaking from memory entirely.

Q. How did you come to handle these labels in 1905 without the term Corn Syrup on them?

A. I don't know as we had them.

Q. Doesn't your letter indicate that?

A. I explained that we knew that it contained glucose, not necessarily labeled glucose, we knew that the syrup contained glucose, that is the reason I wrote this letter, not because it was labeled glucose, but because we knew it was glucose.

Q. If it contained glucose and your label was labeled corn
506 syrup, you didn't have to make any change under that law of 1905?

A. Except what I asked for, the change that I asked for in this letter.

Q. That would be simply the percentage, would it not?

A. I presume that was all.

Q. And that is all you asked for?

A. I presume that is all; the size of letters and figures.

Q. You didn't ask to sell it under the name of corn syrup?

A. No sir. I simply asked for the size of the letters and figures, as the letter states.

Q. You referred to this in your letter as "glucose syrup, which is composed of glucose and cane syrup"?

A. Yes sir.

Q. Showing you knew just what it was made from?

A. I supposed that, yes sir, but I don't think it was labeled that way.

Q. Can you give any reason why you didn't speak of this, instead of calling it "glucose syrup" why didn't you speak of it as "corn syrup"?

A. No sir.

Q. "Composed of glucose and cane syrup"?

A. No sir, it was commonly supposed to be a mixture of glucose and cane syrup and always spoken of as such.

Q. Yes, but according to your recollection, as I understand it, you were selling it not under the name of "glucose syrup" but under the name of "corn syrup".

A. I didn't ask to have the label changed.

Q. No, but you were describing the article here?

A. Yes, because it was commonly understood that glucose was with the syrup; no matter what it was labeled, it was understood to be that.

507 Q. Who understood it?

A. We did.

Q. You didn't mean that the man that ate it understood it?

A. I couldn't say as to that of course.

Redirect examination:

Q. Do you know of any white syrups that are composed of a mixture of glucose and syrup, besides the rock candy syrup I mean?

A. Not at present, no sir, I don't recall any.

Dr. A. G. MANNES, being first duly sworn, testified in behalf of the defendants as follows

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Dr. Mannes?

A. Oconomowoc.

Q. What is your business?

A. Chemist.

Q. And how long have you been a chemist?

A. In practical work since 1888. I started my studies in 1879.

Q. What positions have you occupied in a professional way?

A. I was the chemist for the agricultural experiment station at Champaign, instructor in chemistry there for a while; teacher of chemistry in Chicago College of Pharmacy; fourteen years chief chemist of Armour & Company, and for the last two years chemist for Albert Trostel & Sons, Milwaukee.

Q. Have you within the last few years secured letters patent for the process of preparing fiber from corn stalks?

A. Yes sir.

Q. And the production of a food product from them?

A. Yes sir.

Q. What were the numbers of those patents?

508 A. I can't recall the numbers. I can look it up if you wish. No. 820,806, food extract from corn stalks. No. 839,305, animal food.

Q. Prepared from corn stalks.

A. Well, that is for the mixture from the extract prepared from corn stalks with various materials, such as ground leaves of the corn stalk, ground hay, or any absorbent mixture for taking up the extract prepared from the stalks. No. 811,419, process of preparing fiber from corn stalks and analogous pithy plants.

Q. Have you seen recently in the Tribune and Daily News of Chicago a statement relative to a process of preparing paper from corn stalks?

A. Yes sir.

Q. And with reference to certain experiments that have been carried on in the office of the secretary of agriculture at Washington in connection with that matter?

A. Yes sir.

Q. Do those items relate to these patents of yours and experiments carried on under them?

A. I think they do.

Q. Are there any other patents like yours covering the same processes or claims as yours?

A. Not to my knowledge, no sir.

Q. Do you make an extract from the corn stalk in your process?

A. Yes sir.

Q. Do you take all the juices out?

A. Well, we take all out that is soluble in water. That includes everything that hot water would remove.

Q. Is that extract an edible syrup?

A. No sir.

Q. What is its nature?

509 A. As prepared for use it's a dry powder, it contains the gummy matters, bitter principles, with salts, phosphates, chlorides and sulphates and the saccharine matters.

Q. Did you analyze that what I would call a syrup extract?

A. Yes, I analyzed the extract.

Q. How much sucrose is there in it?

A. The analysis varies with the proportionate amount of leaf left on the stalk during the process of extracting, so you can't give a definite analysis for the product at all times. A good, average analysis of the dried product, I could give you that, as I have it embodied here in the letters patent of this product. It contains ten per cent of moisture, 7.2 per cent of insoluble matters, the ash was 14.3 per cent, protein 9.8 per cent, sucrose 9.2 per cent, glucose 45.8, non-sugars 3.7.

Q. What is the color of the extract?

A. Brownish black.

Q. Its taste?

A. It's distinctly bitter, it's a sweet-bitter taste.

Q. What causes that bitter taste?

A. The bitter principles that are left in the stalk. The extract is necessarily made from the stalk after it has ripened and the percentage of saccharine matter is relatively small; there is enough extractive bitter principle there to produce this bitter taste in the product.

Q. Why made after the grain is ripened?

A. Because the object of this experiment was primarily for the purpose of procuring fiber for making paper. A large yield for making paper is obtained from the matured stalks, matured and cured.

Q. Could you make this paper from the stalks before the grain had ripened?

A. You could make some paper, but the yield of pulp would be too small.

510 Q. Do you wait until the grain has completely ripened?

A. Why, it is necessary to use a waste product from the farmers to get a cheap paper material. We couldn't afford to take the stalk before that period if we wanted to. Then the second reason is that before the grain is ripened the cells are too soft to withstand the hydrostatic treatment that is necessary in preparing paper pulp; so we have to wait until the cells have matured and cured before such treatment can be given, if we expect to get any large yield of pulp.

Q. Does this liquid have any names?

A. It is patented under the name of "Food Extract from Corn Stalks."

Q. Well, is this fit for food for man or only for animals?

A. The intention was to use it for a fodder for animals.

Cross-examination by Mr. OLIN:

Q. What are you doing now, Mr. Mannes?

A. I am chemist for Albert Trostel & Sons, tanners.

Q. That's a Milwaukee concern, isn't it?

A. Yes sir.

Q. Your business there is not dealing with food products?

A. No sir.

Q. These patents that you refer to, three of them, were taken out when? Can you tell us the first one, 820,806?

A. May 15, 1906.

Q. The next one, 839,305?

A. December 25, 1906.

Q. And the next one, 811,419?

A. January 30, 1906.

Q. All in 1906?

A. Yes sir.

Q. Now in your experiments did you aim in any way to make a food for man?

A. No sir.

511 Q. Simply for animal food?

A. Yes sir.

Q. Will you tell us how the extract is taken out?

A. Yes sir. The stalks are chopped up and put into a pressure tank. The pressure tank is a closed tank in which you can heat the water to a temperature where steam is generated and you can regulate the pressure as well. We generally use a pressure of about ten pounds on this tank. That is the hydrostatic extraction that I spoke about. The idea primarily is to loosen the matters soluble in water so as to make the subsequent treatment with chemicals less costly. If you leave this extractive matter in there it has to be destroyed by chemicals. We have taken a step towards the accomplishment of making paper pulp. This water is removed from the kettles and evaporated in vacuum cans, which are heated by the exhaust steam of whatever power appliances you have about the mill. evaporated to a semi-solid consistency, then mixed with the powdered absorbent material, whatever you wish to select, and the whole dried in dryers and kilns, then ground and bagged.

Q. These experiments have been carried on where?

A. In Chicago.

Q. Some special plant?

A. Yes sir.

Q. On how large a scale?

A. Which experiments do you refer to, in Washington?

Q. No, here.

A. The boiler contained about a hundred gallons probably.

Q. Well, I don't care about going into that. Have you put any of the product on the market?

A. Not to sell, no sir.

Q. Now, when you speak of glucose in the elements here of this product, you don't mean commercial glucose, do you?

512 A. I mean, in reducing sugars.

Q. Another name is invert sugars?

A. Yes sir.

Q. And this invert sugar, isn't it, from sucrose in the process of manufacture?

A. Yes sir.

Q. So that the total sugar in the extract in the moist material is about fifty-five per cent according to your figures, isn't it?

A. That's in the dried extract. You say in the moist material, I don't know what you mean by moist material.

Q. Well, in your preparation?

A. In the final preparation the total saccharine matter is the sum of those figures I gave there.

Q. That is, fifty-five per cent, isn't it?

A. Somewhere near there.

Q. And there is about sixty per cent in the dried.

A. Well, divide that product by ninety, that will give you the answer.

Q. Well, there was ten per cent of moisture?

A. Yes, that is about right.

Q. I think it would give a little over sixty. That indicates a good deal of sucrose, doesn't it?

A. Yes sir.

Q. And your attempt as you said was to make cattle food and not a sugar?

A. Yes sir.

Q. Now, you haven't made any experiments on sweet corn?

A. No.

Q. These experiments at Washington, have you had anything to do with them?

513 A. The patents were assigned to a company after they had been taken out. Do you wish for the name of the company?

Q. No, I don't care about that.

A. My partner went to Washington to superintend these experiments, which were carried out, as I understand it, with the idea of the conservation of the forests.

Q. Did the experiments which you had carried on there through yourself or partner contemplate the erection of some plant in Maine?

A. Not the erection of a plant. The Warren Mills in Maine, large paper mills, are going to demonstrate the process this coming season.

Q. Just to identify the thing, is that the process or are those the experiments that were referred to here say a week or ten days ago in the Daily Tribune of Chicago, do you remember?

A. Well, I imagine they were, because I know of no other process of that kind that is being demonstrated at Washington.

Q. Well, did you read it?

A. If you will give me the gist of it, I can tell you.

Q. Well, this I remember particularly, that it was for the purpose of manufacturing a pulp that would make paper from corn stalks.

A. Yes sir.

Q. And in connection with it the demonstration showed that they would get out of a ton of the corn stalks something like three dollars or more of value of either sugar or sugar syrup, I have forgotten whether it is in the form of sugar syrup or sugar.

A. Yes sir, that is this process. The idea is that this extract will have enough value to give the pulp at no cost to manufacturers.

Q. Well, you don't mean then to say here that when the processes are perfected that you will not get a commercial product, sugar or syrup out of it?

514 A. I mean to say this, that this treatment extracts the gummy matter and the bitter principles and the treatment is made at a time when the proportion of sucrose and saccharine matter is relatively small in the plant; that is, it is after the corn harvest and after the curing, and consequently the amount of bitter principles is relatively large, and that is why this product has this bitter taste. Now whether that bitter product can be removed, we have never experimented on anything of that sort.

Q. No, you haven't tried to do that as yet?

A. No sir.

Q. You don't mean to say that that is improbable at all?

A. It is improbable, if I were to be asked whether I thought it could be done, whether it would be profitable to do it commercially, I would say no, because it is water soluble and I would not know how to precipitate it and not harm the food extract.

Q. That is your opinion?

A. That is just my opinion. We have done nothing in demonstrating that.

Q. You don't know how they came to publish in the paper that they would get out of this a commercial product, sugar or syrup—for human food, I mean?

A. I can tell you what my partner said as to how these articles got in the paper. They were not for publication. It was a leak through an assistant in the bureau where they were making experiments. That was not to come out until the report has been made to the committee of congress who were having this matter looked into.

Q. You haven't investigated particularly, have you, as to what has been done along the line of securing a palatable sugar or syrup from the green corn?

A. We have never made any experiments of that kind, because we were after pulp.

Q. And you don't know what has been done along that line?

A. No sir.

515 THOMAS E. LANNON, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside Mr. Lannon?

A. Chicago, Illinois.

Q. Your business?

A. Attorney at law.

Q. Did you go to the office of the Western Trunk Line Association in Chicago for the purpose of ascertaining the rates on the article glucose or corn syrup, the freight rates I mean in the west?

A. Yes sir.

Q. When?

Mr. OLIN: What is the purpose of this?

Mr. FAIRCHILD: I want to show that the freight rates—there is a freight rate on glucose and on corn syrup, and in certain parts of the country separate freight rates, and that it has been so for a great many years.

Mr. OLIN: I don't think that is material.

A. I first went there about three weeks ago and investigated the subject—

Mr. OLIN: We object to this witness testifying on a subject of that kind.

Mr. FAIRCHILD: I just simply asked if he went there for that purpose.

Q. Did you make an effort to procure the attendance of witnesses from that office here with their books to show those rates?

A. Yes sir, I made several attempts.

Q. Unable to do it?

A. Yes sir.

Q. Did you personally examine the rate books yourself for the purpose of getting the rates or the items upon which rates were fixed, from those rate books?

516 A. Yes sir.

Q. Did you take the items upon which the rates were fixed?

A. Well, I had the rates copied by a clerk in the office and I compared them, his copy with the rate books that were given to me by the agent of the Western Trunk Lines Association, as containing the rates from—

MR. OLIN: I object to your stating what information you got and as to the rates, as wholly incompetent and immaterial, certainly incompetent and immaterial, and hearsay.

COURT: I will permit this to be given subject to the objection, with the statement that I do not think the court has the right to consider it.

Exception by defendant.

Q. State whether you copied what you have there in your hand directly from these freight books that are kept in the office for the purpose of inspection by shippers to ascertain rates for the commodities that they purpose to ship?

A. As I said before, the clerk in the office made this copy and I went over there and compared it with the books from which the copy was made. I didn't copy this literally, copy it myself.

Q. That is a compared copy?

A. That is a compared copy; that is the tariffs in here are compared copies, yes.

Q. Now, I will ask you if that is a correct copy of the rate books with reference to this particular article or articles?

A. Yes sir.

Q. Dating back to what time?

A. Dating back to May 23, 1900; effective May 30, 1900.

Q. Now what did you copy from the rate book for that year 1903?

A. In the book which was given to me by the agent as Amendment No. 7 Tariff No. 127, Item No. 112, Issued May 23, 1900, Effective May 30, 1900, the following item appears: "Glucose—

517 MR. OLIN: I understand this is all under my objection?

COURT: All subject to your objection.

A. "Glucose, corn syrup, grape-sugar and jelly, straight or mixed car loads, minimum weight 30,000 pounds."

Q. That had a rate of its own?

A. That had a rate of its own.

Q. What other years did you have?

A. In Tariff No. 153, issued March 30, 1901—

COURT: Wouldn't we save time if that copy were marked and introduced?

MR. FAIRCHILD: Yes, I think we can, your honor. I offer that in evidence in connection with the examination of the witness. This begins 1900 and contains each year down to 1907 inclusive, and the language of the item is the same each year.

(Marked Exhibit 165, received in evidence, attached hereto and made a part hereof.)

Cross-examination by Mr. OLIN:

Q. Mr. Lannon, you reside in Chicago?

A. Yes sir.

Q. Your business you say is that of a lawyer?

A. Yes sir.

Q. Are you the attorney for the Corn Products Company in this proceeding, or one of the attorneys?

A. Well, I am retained by Dr. Wagner here. I don't know in particular who I represent.

Q. Well, he represents that company you know, don't you?

A. I don't know that, no sir.

Q. Well, do you mean you have any doubt about that?

A. Well, I don't know that I care to express my doubts, unless you want me to.

Q. I want you to state the truth about it.

A. I don't know who I am employed by. I am employed
518 by Dr. Wagner here.

Q. And you don't know that he represents in employing you the Corn Products Company?

A. I presume he does. I don't know that.

Q. You haven't any doubt about that?

A. No, I don't think I have any doubt about that. I don't know.

Q. Have you been employed in various litigations by that company where it has been had?

A. Not in various litigation, no. I have been employed by Dr. Wagner for consulting purposes for the last year or two.

Q. You are a sort of a specialist as an attorney in these food cases, arising out of the enforcement of the pure food law?

A. Yes, I make a special study of that line of law.

Q. Always on the side of the defendant?

A. Well, of recent years, yes.

Q. Well, I don't say that there is anything wrong about it, but that is the fact, isn't it?

A. It is not the fact, because I was with the food departments for upwards of probably two years.

Q. Where?

A. The state of Illinois and the state of Kentucky.

Q. How long ago?

A. In 1902 and 1903.

Q. Since that you have been devoting yourself along this special line?

A. Yes sir.

Q. In representing the defendants in these cases?

A. Yes sir. Representing manufacturers generally, food manufacturers.

Q. You have produced a paper here that has been marked as Exhibit 165. Is there any rate shown on that paper as to what the freight rate is on these different articles?

A. No sir.

Q. Nowhere on it?

A. No sir.

E. M. CAMPBELL, being first duly sworn, testified in behalf of the defendant- as follows:

(Examination by Mr. FAIRCHILD:)

Q. Where do you reside Mr. Campbell?

A. Chicago.

Q. What is your business?

A. That of rate clerk, traffic man for the Corn Products Refining Company.

Q. In that capacity how long have you been?

A. About two years.

Q. Beginning when?

A. I think the exact date was January 21, 1907.

Q. What, in a general way, are your duties?

A. Devising rates, tariffs, etc. working in connection with the sales department in so far as rates are concerned on the various products.

Q. Do you know whether since you have been with the company there has been a rating of glucose and corn syrup by the Western Trunk Lines centering in Chicago?

A. I do.

Q. Is the rate a separate rate for glucose and corn syrup, or is it the same rate?

Mr. OLIN: I make the same objection.

Court: He may answer.

A. It happens to be as published by the Western Trunk Lines the same rate, you might say, and carried in the same items.

520 That is, what we mean by items, there are several articles carried in that item and they happen to be the same rate.

Q. Is that single rate confined to any particular part of the country?

A. The Western Trunk Lines, as published by the Western Trunk Lines committee.

Q. Is there a different rate on these same articles in the East?

A. No sir, not in what we call the Western Trunk Lines, but in the Western Trunk Line territory there is a difference.

Q. There is a difference?

A. A different rate.

Q. What part of the territory does that affect?

A. That covers territory east of Pittsburg and Buffalo to the seaboard.

Q. What is the difference in the rate? What is the rate?

A. What is the rate?

Q. Yes, in the East?

A. Do you want specific figures?

Q. Yes.

A. Well, we use Chicago and New York on the basis of twenty-five cents a hundred—

COURT: Is it material to go into the details of the rates?

Mr. FAIRCHILD: Not except to point out the difference, that is all.

A. That basis I speak of, Chicago and New York, that is the basis of all those rates, that is twenty-five cents on glucose, and on the refined syrup thirty cents.

Q. Refined syrup?

A. Or corn syrup n. o. s.

Mr. OLIN: What is that n. o. s.

A. Not otherwise specified.

521 Cross-examination by Mr. OLIN:

Q. If I understand it, Mr. Campbell, all it amounts to is this, that in one territory here around Chicago it is the same on glucose and this mixture?

A. Well it extends further than that.

Q. That is one section. You mean the territory extends further than that?

A. Yes sir, what we call Western Trunk Line territory.

Q. What would be the Western Trunk Lines?

A. Embracing all the territory, you might say, east of the Mississippi river to the Illinois-Indiana state line, taking in this territory up towards St. Paul.

Q. This middle west?

A. Yes sir, the middle west, Iowa.

Q. Do I understand that you have the same rate on the unmixed and mixed article?

A. Yes.

Q. Now, when you get to the east they charge you a little more for a more valuable article?

A. I wouldn't say it is a more valuable article—from a transportation standpoint I wouldn't.

Q. Well, in the one case you have simply the glucose by the barrel we will say, in the other case you have these mixed syrups?

A. We know them as corn syrups.

Q. For how long have you known them as corn syrups?

A. Well, we have right along, from a transportation standpoint.

Q. Since you have been with the Corn Products Company?

A. And before. I was in the railroad business before that.

Q. Prior to that you handled these Fancy Drips and Pride Sorghums, Louisiana Molasses, and all those things, didn't you?

A. No sir, we didn't. A railroad man don't know those at all.

522 Q. The railroad officials are men, I suppose, who ship the goods as they are marked?

A. Well, as they are billed out, in other words. In billing them the fancy names don't appeal to them, they are not used at all, especially in making up the rates.

Q. Now, there was the same difference in former years prior to your working here for this company, between the mixed and un-mixed articles?

A. Yes.

Q. That is nothing new?

A. Nothing new.

Redirect examination:

Q. You say you were in the railroad business before that?

A. Yes sir, I was educated along those lines.

Q. Where?

A. The last railroad company I was with was the E. J. & E. Elgin, Joliet & Eastern belt line.

Q. Were you familiar with the fact that this product under separate names, corn syrup, and glucose, had appeared in the rates of these western railroad lines, before that?

Objected to as leading.

Objection sustained.

Exception by defendant.

Q. Will you state whether this product under the name of glucose and as corn syrup appeared in the rates of railroads before you went to the Corn Products Company, in the same items?

Objected to as leading and suggestive.

Objection sustained.

Exception by defendant.

523 Q. Do you know whether this product corn syrup and glucose appeared in the same item of the freight rates of the railroads running out of Chicago prior to the time you went with the Corn Products Company?

Objected to as leading and suggestive.

Court: You may answer by yes or no.

A. I do know, yes sir.

Q. State whether they did or did not appear in the same item, the corn syrup and glucose?

A. You mean prior to my time with the Corn Products Company?

Q. Yes.

A. Yes sir, I know that they did.

Q. For how many years do you know that was true prior to 1907?

A. Well, I have got records in my possession now that show back to 1901, but as to my memory, that is about my beginning of it anyhow, my experience.

Recross-examination:

Q. Have you got the records here?

A. Yes sir.

Q. In your pocket?

A. I got them on the table there. I don't want to submit them here because I have to return them to the file.

(Recess until the following morning, January 1, 1909, at which time the trial was resumed.)

524 J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. I show you a letter marked for identification Exhibit 166 and purporting to have been written by the Warner Sugar Refining Company to you as commissioner, under date of October 4, 1905, with a label or sample of a label marked for identification Exhibit 167, and I wish you would state how those came into your possession.

A. The letter was received through the mail from the Warner Sugar Refining Company.

Q. What was attached to it, if anything, or accompanied it, if you know?

A. There was attached to it a proposed label for the use of the Roundy, Peckham & Dexter Company for relabeling some of their products said to be on hand.

Q. Well, was Exhibit 167 attached?

A. Yes sir, it was enclosed in the letter.

Q. And in the form that you now see it?

A. Yes sir.

Q. Did you approve of that?

A. No sir.

Mr. OLIN: We will offer the letter and the label in evidence.

Objected to as incompetent, irrelevant and immaterial.

Objection overruled.

Exception by defendant.

Mr. OLIN: The letter is as follows:

"WAUKEGAN, ILL., October 4, 1905.

Mr. J. Q. Emery, Commissioner, Dairy & Food Commissioner, Madison, Wis.

525 DEAR SIR: One of our customers in Milwaukee has several carloads of syrup on hand which he desires to re-label to comply with the new laws of your state, as per label enclosed. Before printing these labels for him you will kindly advise if same will meet the requirements.

Your early attention will greatly oblige.

Very truly yours,

WARNER SUGAR REFINING
COMPANY,

A. H. KERSTING,

Sales Department."

Q. The label accompanying it has on it, hasn't it, "Roundy, Peckham & Dexter Co."?

A. Yes sir.

Q. Now there is printed over to the left hand side the figures "85" above, then below "corn syrup" then below "15" and below that "cane syrup". Was that printed after the label was originally prepared?

A. Yes sir.

Q. And what do you say as to the word "corn" to the right of the "Fancy Table Syrup"?

A. That was printed after the original label was prepared.

Q. Did they see you personally?

A. No sir, it was all by correspondence.

Q. You have with you, have you, the copy of your answer?

A. Yes sir.

Q. So if counsel desire to see it, they may do so.

(No cross examination.)

526 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. There was one statement in Allen's book you referred to yesterday, doctor, that I would like to have you call attention to on the same page, that is, in the large print; you read something as a sort of a foot note in small type.

A. Yes sir. On page 359 of this volume 1 of Allen's Commercial Organic Analysis appears this statement, under the head of "Commercial Glucose and Starch Sugar". "Starch glucose occurs in commerce in several forms, varying from the condition of pure anhydrous dextrose, through inferior kinds of solid sugar, to the condition of a thick, syrupy liquid resembling glycerin, which contains a large proportion of dextrin".

Q. Is there then at the end of that a star with a reference?

A. Foot note number 2.

Q. Then that foot note number 2 you read?

A. Yes sir.

Q. Now, have you also, since you were on the stand, consulted the article that your attention was called to as written by Dr. Wiley found in volume 11 of the Universal Encyclopedia, concerning sugar made from corn stalks?

A. Yes sir.

Q. You have it here, have you?

A. I have.

Q. Now, there were certain parts of that read to you yesterday, did they pertain to the manufacture of syrup from corn stalks or sugar?

A. Only to the manufacture of—well, the manufacture of syrup is often discussed.

Q. I say, the part read to you?

527 A. As I remember it, it applied only to sugar. At any rate the statement is made by Wiley that the commercial preparation of sugars from maize stalks is a hopeless task so long as better and cheaper sources of raw material exist in practically inexhaustible supplies, and the statement is made that the difficulty in getting sugar from maize stalks, maize sap, is that the syrups resulting from concentrating the juices crystallize with great difficulty. That would make, nevertheless, a good syrup.

Q. But would be a difficulty in the way of making sugar?

A. Yes sir. It seems from analyses that a large percentage of the cane sugar existing in the juice is inverted during the operation of concentration.

Dr. T. B. WAGNER, being recalled, by the prosecution, testified as follows:

(Examined by Mr. OLIN:)

Q. You remember of your company, do you not, Dr. Wagner, asking for a hearing before the board of food and drug inspection to restore the standards and definition that had been omitted from Circular No. 19?

A. I don't think that is quite correct.

Q. Please read the question (Question read).

A. As to corn syrup.

A. I personally submitted the letter to the board of food and drug inspection, stating therein that there seemed to be——

Q. Have you got the letter?

A. I think I have a copy of it, yes.

Q. I will take the letter if you will just produce it.

(Letter produced by witness.)

528 A. "The Board of Food and Drug Inspection, Department of Agriculture, Washington, D. C. Gentlemen: The following brief is respectfully submitted for the purpose of clearing away the doubts which we understand are being entertained by your honorable board in regard to the propriety of employing the name 'Corn Syrup' as a synonym for glucose, and the name 'Corn Sugar' as a synonym for 'Starch Sugar'".

Q. You remember the date of that?

A. July 8, 1907. And I wish to say in explanation what prompted this letter was a number of talks which I personally had with members of the board of food and drug inspection.

Q. Well, I don't care to go into that. I want to get the record evidence here as far as we are concerned. There was a hearing granted in pursuance of this request?

A. Yes sir.

Q. And a decision was reached in the matter by that board and a copy was sent to your company?

A. Not exactly. We received a letter in which it was stated that it was the unanimous opinion of the board. It was not in the form of a decision.

Q. That letter is dated November 8, 1907, isn't it?

A. Thereabouts.

Q. I presume you have a copy of it here or the original. If you will just look at this and read it and see if that isn't a copy of it according to your best recollection?

A. Yews sir, that is a copy.

Mr. OLIN: We offer that in evidence.

"NOVEMBER 8, 1907.

Corn Products Company, 42 East Madison St., Chicago, Ill.

GENTLEMEN: Referring to the briefs and arguments which you have submitted to this board in re. the use of the term "corn syrup" and to the hearings which you have had before the board, I beg to make the following statement:

The board of food and drug inspection carefully considered the briefs and arguments which you have submitted and the points brought out at the oral hearing. We have come to the unanimous conclusion that the term "corn syrup" is not a proper designation to be used with a mixture of glucose and sugar cane products. We are further of the opinion that the term "corn syrup" is not a satisfactory synonym for glucose.

Respectfully,

W. H. WILEY, *Chairman.*"

Q. Now, you have seen the decision that that letter refers to, haven't you, doctor, before this?

A. I have never seen any decision but this letter.

Q. Just read what you find there on page 8.

A. "Corn Syrup as a Synonym for Glucose. Many exhibits and briefs have been submitted to the board respecting the term "corn syrup" for "glucose". Hearings have also been had by the board on the same subject".

Q. This decision is the decision they reached, as I understand it—I didn't mean to have you read that out loud—is that the fact?

A. Let me say in explanation of this decision, as you call it, it was never published; therefore, I never had any knowledge of this document.

Q. I am going to call your attention to that. Just look it through, doctor, first.

A. Well, the middle paragraph is a quotation from my own statement which I have read this morning, and the closing paragraph is practically the letter which we have just quoted as coming from Dr. Wiley, as coming from the board of food and drug inspection.

Q. You understood they had reached a decision from that letter?

A. The unanimous opinion that corn syrup was not a proper name for glucose. I could hardly consider it a decision, because it was never put in the form of a decision.

Mr. FAIRCHILD: They use the word "satisfactory".

A. Satisfactory—to them.

Q. Now, was not that the decision of the board of food and drug

inspection which was to be printed as decision number 83 and announced on November 12, 1907?

A. I don't know anything about that.

Q. Why, didn't your company learn of that?

A. Why, we received this letter and immediately upon receipt of this letter I personally went to Washington and I told Secretary Wilson that to my own knowledge the brief which I had submitted had not been read by the members of the board of food and drug inspection nor had the exhibits which I submitted been ever opened.

Q. That is what you told the secretary?

A. Yes sir.

Q. I didn't ask you that?

A. But I am coming to the point, if you will permit me.

Q. I was trying to get at the record evidence.

A. I was trying to come to that. I asked the secretary whether we could not get an opportunity of presenting our evidence to the full board and possibly to the secretary himself.

Q. Well, I am going into that part of it. You say you didn't get that form of decision?

A. Nothing beyond the letter which I have quoted this morning.

Q. But you learned, didn't you that the decision had been made and approved of by the secretary and has been set up in galley-proof?

A. I learned that from the brief of Dr. Wiley from which we are quoting.

531 Mr. FAIRCHILD: I ask that that statement be stricken out. That is mere hearsay.

COURT: What statement?

Mr. FAIRCHILD: The statement just now in response to the question that was asked him.

COURT: It all may be stricken out.

Q. You also learned that, didn't you, from your talk with the secretary of agriculture?

A. I asked the secretary whether a decision——

Q. My question is simply whether you learned from the secretary of agriculture that a decision had been reached and approved of by him and ordered printed?

A. I don't know as that was stated, no.

Q. Well, didn't you learn that fact from the secretary of agriculture when you met him?

A. In fact, I understood him to say that the matter hadn't gotten to that point yet, because if it had been a decision and approved of by him the matter couldn't have been taken up again.

Q. Why, it wasn't too late to have him reconsider it, was it?

A. Why, if he had approved of it I should think——

Q. Wasn't that just the point of your personal visit to him, to get him to allow you to have the matter opened up and presented?

A. Yes sir.

Q. And didn't you learn from him at that time that the decision of the board of food and drug inspection had been approved of by

him and ordered printed as one of the decisions, but had not yet been published?

A. I wouldn't put it that way, no sir.

Q. You think that you didn't learn that fact there, in substance?

A. I may have learned it in Washington, yes, but—

532 Q. Well, you did learn that, didn't you, and that was the occasion of your moving in the matter?

A. I beg your pardon, no sir—I emphatically say no.

Q. Why, you learned from the secretary—

A. That an opinion had been rendered and because it was not in the form of a decision I went to see Secretary Wilson to see whether he was in accord with that opinion.

Q. Why, you understood from this letter that it was a decision of that board.

A. It says "unanimous opinion that this is not a satisfactory term. Every decision of the board of food and drug inspection has a number attached to it. This one did not have any number. We weren't given the number 83 or 86 or any other number.

Q. They said, not "opinion" merely, but they said "we have come to the unanimous conclusion".

S. "Conclusion"—that's it exactly.

Q. And before the conclusion was published you had this personal interview with the secretary of agriculture?

A. Exactly, yes sir.

Q. Now, do you wish to state, doctor, that you did not learn at that interview that it had been set up in type?

A. Yes, I would say that I did not learn that it has been set up in type.

Q. You would say that you didn't know it?

A. I wouldn't say either, because I don't know.

Q. And didn't you at that time ask the secretary to stay further proceedings in the matter and give your company an opportunity to have the matter opened up, in substance?

A. I stated, if it was possible that we be given a hearing. I would ask him to kindly give us a hearing, and he gave us exactly three weeks.

533 Q. That is, a hearing was fixed for December 5, 1907?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. Were the same gentlemen who constituted the board when this opinion or conclusion was reached that has just been referred to members of the board at the time Decision 87 that has been introduced in evidence declaring "Corn Syrup flavored with cane" a proper designation of this article, the same members of the board when the other conclusion was reached?

A. They were.

Q. Do you know whether a majority of the board approved of the decision of the three secretaries?

A. The majority?

Q. Yes.

A. Yes sir.

Mr. OLIN: I move that that be struck out. If there is anything of that kind it is on record. Your question may mean two things, the three secretaries is one thing and the board of food and drug inspection is another.

COURT: What did you mean by your answer, who approved it, a majority of the secretaries, or some other board?

A. The majority of the board of food and drug inspection.

Q. You don't mean by that the three secretaries?

A. No.

Mr. OLIN: Now, I move that that be struck out as not proper. If there was any such approval of that, it is on record.

Mr. FAIRCHILD: I wish to show that the majority of that board of food and drug inspection, at the time the three secretaries rendered their decision, were in perfect accord with that decision and even submitted briefs urging the same. That is, they came
534 to a different conclusion entirely upon this final hearing from what they had reached in their oral opinion that has been referred to by Dr. Wagner.

COURT: The last answer may be stricken out. You may show the facts if you desire.

Exception by defendant.

Q. Do you know whether when this original decision was reached all the members of the board participated in it?

A. They did not.

Mr. OLIN: Do you know of your own knowledge?

A. I do.

Mr. OLIN: Or what somebody told you?

A. No, I was the only representative of the Corn Products Refining Company at that meeting?

Mr. OLIN: Do you know what they did after you left?

A. No, I don't know what they did after I left.

Mr. OLIN: I move that that be struck out.

COURT: It may stand.

Q. Who was absent?

A. Dr. Dunlop.

Q. How many were on that board?

A. Three.

Q. Who were they?

A. Dr. Wiley chairman, Mr. McCabe as solicitor of the department, and Dr. Dunlop, the associate chemist.

Q. Will you state whether Mr. McCabe and Dr. Dunlop submitted brief to the three secretaries favorable to the use of the words "Corn syrup flavored with cane" as a proper designation of this article?

Mr. OLIN: We object to that as incompetent, as not proper cross examination, and if they submitted any briefs, we are entitled to see those briefs.

Objection sustained.

535 Exception by defendant.

Q. Have you those briefs?

A. I have not got them with me.

Q. Do you know personally whether Mr. McCabe and Dr. Dunlop at the time of the hearing before the secretaries were present and participated in any way in that hearing?

A. They both participated in that hearing.

Q. Did you hear them make an argument or arguments on the subject?

A. Yes sir.

Q. What were their arguments, for or against the use of that name?

Objected to as mere hearsay.

Q. I will ask you, doctor, what Mr. McCabe said on the subject of the propriety of using the words "corn syrup with cane flavor" as applied to this commodity?

Mr. OLIN: We object to that as not only hearsay, but even as not secondary evidence, it being shown here that these parties, as I understand, filed written briefs at that hearing.

Mr. FAIRCHILD: After it was over they filed the briefs, but they made arguments also.

Court: He may answer.

Mr. OLIN: It is objected to further, that it is not cross examination of this witness. He is an interested party, and I don't think it ought to be permitted.

Court: He may answer.

A. The statements made at the hearing on December 5th were largely in the line of interrogation seeking enlightenment on the subject, because these men stated that they had not received—

Court: What men?

A. The two men covered by the question, Mr. McCabe and Dr. Dunlop, that they had not as yet received full information, such full information as would enable them to form a definite conclusion, and therefore they invited us to submit any briefs which we might have in substantiation of our contention that corn syrup was a legitimate name for our product and had been in use in this country for at least twenty-five years.

Q. Did they make any argument at that hearing or were their conclusions submitted in a brief later on entirely?

A. At that meeting of course their statements were in the line of argument, they would bring up all such points as they had been advised of against us, and asking us to contradict them; for instance the standards, the definition of a syrup was particularly gone into, and it was shown that—

Mr. OLIN: Now, I object to that.

Mr. FAIRCHILD: That is sufficient in answer to my question.

Q. I will ask you if when you went there you had been informed

that the briefs that had been submitted and the proof that had been submitted had not been considered by the board, or where did you discover that—how did you discover that?

Objected to as hearsay and not cross-examination.

Q. You made the statement in your examination in chief that the proof you had submitted hadn't been considered, hadn't been opened?

A. Yes sir.

Q. How did that information come to you?

A. During discussion on the subject while I was at Washington.

Q. With whom?

A. I think Dr. Dunlop and I think in a measure Mr. McCabe.

Q. Were all the board present at this hearing before Secretary Wilson?

A. At that time they were, yes sir.

Q. I mean on December 5th?

A. December 5th.

537 Q. Did they all participate in that hearing?

A. Every one, yes sir.

Q. Did each of them file briefs afterwards?

A. Yes sir.

Q. I mean file briefs with the secretary?

A. Yes sir.

Q. Will you state when the briefs of these three members of the board of inspection were filed, after the argument and hearing on December 5th, or after that argument?

A. After the argument.

Q. Did you see those briefs later on?

A. I did.

Q. On file in the——

A. In the Department of Agriculture.

Q. Have you a copy of any kind here of the briefs of Mr. McCabe and Mr. Dunlop?

A. I haven't got them with me. What I have with me is a rather incomplete copy.

Redirect examination:

Q. Where is the complete copy?

A. I haven't got it, I don't know.

Q. Did you ever have it?

A. No sir.

Q. How did you come to get an incomplete copy?

A. Because I read the original.

Q. And copied out such parts as you thought were material?

A. As were of interest to me.

Q. Did you get a complete copy of Mr. Wiley's brief?

A. No sir.

Q. You have seen that, haven't you?

A. Yes sir.

538 Q. He was the chairman of the committee?

A. Of the board of food and drug inspection, and still is.

Q. You were not refused a copy of any of these briefs?

A. No sir.

Q. Did you get portions of the brief of Mr. Wiley?

A. Yes sir.

Q. You have those with you?

A. I have.

Q. Can you produce them?

A. Yes, I have them in my bag.

Q. To what extent do you cover the whole field that he covered in his brief?

A. By far the largest part.

Q. You have practically then his brief?

A. Oh yes in substance.

Q. How did you get that?

A. From the files of the Department of Agriculture by permission of the secretary.

Q. How long have you had it?

A. Almost a year.

Q. Will you please be so kind as to let me see the copy which you have.

(Produced by witness and handed to Mr. Olin.)

Q. I have compared, doctor, what you have presented to me with what I understand to be a true copy of Dr. Wiley's brief, and I will ask you now to state whether or not the paper I present to you which you presented to me is not you understand a full and complete copy and a true copy of everything that is found in his original brief as filed with the department on this matter, with the exception of seven pages in all which deal exclusively with the subject of—headed "Supplemental Brief on the Subject of Glucose vs.

Corn Syrup", dealing with the opinion evidence that was submitted by your company.

A. As I said before, I thought this was a rather complete copy. I believe, however, that there are not only those pages missing, but I believe that there are sections and paragraphs missing which the stenographer did not get into the copy. The copy is not a compared copy, I have no means of comparing it.

Q. I don't mean necessarily to say it is a compared copy. You didn't need any statement as to the opinions which you already had in another form I suppose?

A. What is your question?

Q. I say, I suppose you didn't feel that you needed anything Dr. Wiley said as to the opinions of these experts or list of them that he attached in his brief—you had those already?

A. Yes, but of course I don't know anything about that not getting into this copy here.

Q. That seems to me a complete copy from the examination we have made here aside from that.

A. Well, of course I would not be satisfied with such a hasty examination for court purposes, so I am not prepared to testify that this is a true copy.

Q. But you did think you had got—

A. A rather complete copy.

Q. A rather complete copy, to serve all purposes so far as his argument is concerned?

A. So far as my own personal purposes are concerned, yes.

Q. And that you obtained at what time?

A. It was within a month I believe after the decision was rendered. That would bring it within March. I may be mistaken however. It may have been in the summer.

540 Recross-examination by Mr. FAIRCHILD:

Q. Doctor, you stated that you were not refused a copy of the brief. What do you mean by that?

A. I mean that I was not refused permission on the part of the Secretary of Agriculture to look over these briefs and make notes on them if I wanted to, for my own information, but I was refused a certified copy.

Q. You made endeavors several times to get certified copies of them?

A. I did sir—not only I, but counsel in Chicago and other members of the company.

Redirect examination by Mr. OLIN:

Q. You had no more difficulty in getting copies of the briefs of McCabe and Dunlop than you did of getting copies of Mr. Wiley's brief?

A. Such copies as this?

Q. Yes.

A. Yes sir.

Q. You had no more difficulty?

A. No sir, all three briefs were given to me.

Q. Was this copy you had, containing, as I take it, something like 178 pages of typewritten matter, prepared there at the office in Washington?

A. Whose office?

Q. At the office at Washington, office of the commissioner of agriculture or Secretary of Agriculture?

A. No sir, it was not.

Q. Or at any one of his departments?

A. No sir. It was made at the office of a public stenographer in Washington?

Q. From the original?

A. From the original.

541 Q. You were permitted to take it out from the secretary's possession to the office of a public stenographer and have a copy made?

A. I wish to say that he offered me the use of his office, but I told him, I said, "This is rather a lengthy document and I could not possibly make a copy of it inside of a half an hour," so he let me take it during the afternoon and I delivered it the next morning in person to the secretary, all three copies.

Q. What did you mean a moment ago by saying that you tried

to get copies of the arguments of Dunlop and McCabe, but hadn't been able to do it?

A. If I made that statement I had reference just the same as in this case, to the certified copies.

Q. You didn't mean that you couldn't get a true copy?

A. I meant the same as I said in reference to Wiley's brief.

Q. That is, you understood it wasn't the business of the department at Washington to be certifying copies for private use of their documents?

A. For public use I would say.

Q. Well, if that is the way you consider it, anything for your company a public use?

A. If we introduced it into court, I should think it would be a public use.

Q. Is that what you were seeking to get the copy for?

A. No, not exactly, at that time, there was no controversy on anywhere in regard to corn syrup. Of course they were interesting documents, and I liked to have always certified copies if I can get them.

Q. You didn't ask, or did you, the secretary at the same time to take the briefs of Dunlop and McCabe and make copies of them?

A. I did, yes sir.

Q. And you made copies of them in the same way that you did of Mr. Wiley's?

542 A. I did.

Q. Was there any reason why you didn't make as complete a copy of their briefs as you did of this one?

A. No.

Q. Is there any reason why you shouldn't have those copies here with you?

A. I think one is in the possession of Mr. Fairchild here now at this time?

Q. Which one is that?

A. I think that is McCabe's.

Q. Have you got Dunlop's here too?

A. I think I have Dunlop's here too.

Q. So you have really the opinions or briefs of those two gentlemen in just as complete a form as you have that of Mr. Wiley's?

A. I have not.

Q. Any reason why you couldn't have it as complete?

A. Yes, because I told the secretary that I would take those copies only for the afternoon and I would return them the next morning, and I had to live up to my statement.

Q. Didn't you say a moment ago in answer to my question that they were just as complete?

A. I said I don't consider Wiley's copy a complete copy.

Q. I didn't ask you that, but I asked you if the other copies you had of the briefs of these two gentlemen were not just as complete as the copy you have of Mr. Wiley's brief, and I thought you said they were.

A. No, I don't think so, because I know to my definite knowledge that there were pages missing; that was entirely accidental.

Q. It is accidental if they are missing?

A. Well, because the stenographer didn't finish them in time. For no other reason.

543 Q. I thought you said in answer to your counsel's question, I may be mistaken, that you had these copies of these briefs of McCabe and Dunlop, but you hadn't them here—did you not so state in your cross examination?

A. Well, I don't know as I did state that. I just said that I haven't got the one because that is in the possession of Mr. Fairchild.

Q. The fact of it is, whatever briefs you have here, or copies of these briefs, you have here, haven't you?

A. I brought them with me.

Q. So if you did answer that you haven't got them here, you made a mistake?

A. I didn't because I haven't got the one copy.

Q. Well, either of them, if your testimony is subject to that interpretation, that you didn't have either Dunlop's copy of his brief or the brief of Mr. McCabe here, you made a mistake?

A. I beg your pardon, no. I said that I did not have a complete copy of either Mr. McCabe's or Mr. Dunlop's as filed with the secretary.

Q. Didn't you say that you didn't have it with you, but you had it?

A. I said I didn't have a complete copy with me.

Q. But that you had it somewhere else—didn't you so state?

A. No sir, I said I didn't have it with me, a complete copy.

Q. Well, the record shows. I may be mistaken.

544 J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN).

Q. Mr. Emery, you have already stated you were familiar with the fact of there having been a hearing of this matter before the secretary at Washington?

A. Yes sir.

Q. Did you learn that Dr. Wiley had prepared and submitted a brief on this question at the time of the hearing before the secretaries?

A. Yes sir.

Q. How early did you learn that fact?

A. I learned it about a year ago. I can't give that exact date now.

Q. Did you learn at that time also that a copy of that brief was in the possession of the Corn Products Company?

A. Well, that information was given to me.

Q. Did you at about that time seek to obtain a copy?

A. I did.

Q. In what way?

A. I wrote the secretary of agriculture and requested a copy of Dr. Wiley's brief as presented to him in the hearing on the subject of Corn Syrup vs. Glucose.

Q. Did you get a copy?

A. I was refused a copy.

Q. Did you ask for any certified copy?

A. No sir.

Q. You say you were refused a copy?

A. Yes sir.

Q. Did you ask for this copy in your official position, or office?

A. Yes sir.

Q. Did you quite recently seek to get a copy in some other way?

A. Yes sir.

545 Q. What did you do?

A. I asked Congressman Nelson, after stating to him my experience in failing to get a copy, to telegraph the secretary of agriculture requesting a copy of that brief for the dairy and food commissioner of the state who was one of his, Congressman Nelson's constituents. That was, as I recall it, a week ago last Tuesday or Wednesday in the afternoon. I think it was Tuesday a week ago.

Q. Do you know whether Congressman Nelson telegraphed as requested?

A. Yes sir.

Q. Did you in answer to that telegram get some response?

A. Yes sir. On Saturday afternoon at my home in Albion I received a telephone message from Congressman Nelson stating substantially that he had a telegram from Secretary Wilson stating that the dairy and food commissioner of Wisconsin collaborated with the department of agriculture and on the personal request of the dairy and food commissioner a copy of Dr. Wiley's brief would be sent to the dairy and food commissioner.

Q. And did you later receive by mail what purported to be a copy?

A. I immediately telephoned a message to the Western Union and sent a telegram to Secretary Wilson requesting—my telegram stated that following the suggestion of his telegram to Congressman Nelson I requested a copy of Dr. Wiley's brief in Corn Syrup vs. Glucose.

Q. And did you later get by mail what purported to be a copy?

A. Last Wednesday morning I received a letter from Secretary Wilson accompanied with what he stated was a copy of Dr. Wiley's brief.

Q. Now, that came to you, did it not, Mr. Emery, in separate parts?

A. Yes sir.

Mr. OLIN: I will say that I have had those parts put together, Mr. Fairchild, in the order in which they came and the document which I hand him is the identical document which was turned over to me and I took it out of the envelope with the exception of

546 the first page there, an index, which I prepared. Now we offer this in evidence.

Mr. FAIRCHILD: We object to that as incompetent, irrelevant and immaterial. In the first place there is no controversy here at all that Dr. Wiley dissented from the decision of the other two food inspectors or members of the board of inspection, and this is merely an argument, merely a brief and argument filed in support of a certain proposition, and it doesn't seem to me to be competent as testimony in the case.

COURT: What is the purpose of the offer, and how is it competent?

Mr. OLIN: Why it occurred to me if this other line of proof as to the briefs of the other members of the board is competent that this is competent.

COURT: I don't think there is testimony as to the other briefs except that they were filed and that those persons asked questions during the hearing.

Mr. OLIN: I thought it went farther than that.

COURT: There were questions put and answers given which went further, but the answer was stricken out and the objections to the other questions were sustained.

Mr. OLIN: I was under the impression that Dr. Wagner stated what these gentlemen said.

COURT: He did, and all that was stated there was that they asked questions with reference to the facts that they put forth their position, which was consistent with the first order or decision, and asked them for additional facts to combat their decision.

Mr. OLIN: Then, do I understand that there is no proof in the case that these two members of the board of food and drug inspection were opposed to the opinion as expressed in the letter by the chairman to this company?

547 COURT: That is my understanding of the testimony.

Mr. OLIN: If that is the testimony, I don't think this offer is a proper one.

Objection sustained.

Mr. OLIN: I have the letter as I stated.

COURT: I don't think it is material now.

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8:30 A. M.—January 2, 1909.

Mr. FAIRCHILD: We offer Act No. 123 of the published acts of 1903 of the state of Michigan, entitled "An Act in Relation to the Sale of Corn Syrup." I haven't the published act here, but that act will be found quoted in the case of *People vs. Harris* in the 97th Northwestern Reporter, page 402.

Mr. OLIN: We do not object on the ground that it is not a proper way of proving it, but we object on the ground that it is incompetent, irrelevant and immaterial.

COURT: It may be received.

Mr. OLIN: Now, I wish to have it understood that the original Michigan report may be considered by either side in place of the Northwestern Reporter.

Mr. FAIRCHILD: That is 135 Michigan, 136.

Mr. OLIN: Then I wish to have it understood that the preceding laws of Michigan referred to in that decision may be considered in evidence.

Mr. FAIRCHILD: Whatever is referred to there in the decision itself I don't object to.

Court: Whatever statutes are referred to in that case are to be considered before the court.

Mr. OLIN: I want to look at the decision again, I have a little doubt whether the law referred to is in there, but if not, I will look it up. There is a prior law either referred to in that decision or some other that I want to get in evidence.

It is stipulated that the Public Acts of Michigan and the reported decisions of its supreme court as published by authority of that state may be referred to for said Act No. 123 and the decision of People vs. Harris, as though each were set out at length herein.

C. E. REEDS, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Reeds?

A. Eau Claire, Wisconsin.

Q. What is your business?

549 A. A traveling representative of the Corn Products Refining Company.

Q. In what capacity?

A. As traveling salesman.

Q. For their products?

A. Yes sir.

Q. How long have you been engaged as a traveling salesman for any company or individual?

A. That is, since I have been on the road you mean?

Q. Yes.

A. About fifteen years.

Q. Have you in your capacity as a salesman sold the article which has been called here corn syrup?

A. Yes sir.

Q. How long have you been selling that article as corn syrup?

A. Three years.

Q. When did you first begin to sell the article?

A. January of 1906.

Q. For whom?

A. For the Eau Claire Grocery Company of Eau Claire, Wisconsin.

Q. Were you handling that syrup in any way before 1906?

A. No sir.

Q. I mean by that under any other name?

A. No sir.

Q. Did you begin to travel for the Eau Claire company January 1st, 1906?

A. Yes sir.

Q. How extensively did you travel for that concern?

A. One year.

Q. How extensively, over the state?

A. Only a short territory, as groccerymen usually have, about a two weeks' territory.

550 Q. Over what part of the state?

A. Well, it would be what I would call the northwestern part, around Eau Claire, and that is the northwestern part of the state. I traveled east and south of Eau Claire.

Q. How far from Eau Claire, how much of a territory say measuring from Eau Claire?

A. Well, possibly east and south on the Wisconsin Central line about seventy-five miles and south on the North Western line about fifty miles.

Q. Did you find when you went into that territory to travel an established trade for this atticle, corn syrup?

A. Yes sir.

Objected to as leading and suggestive.

COURT: The answer may be stricken out.

Exception by defendant.

Q. State whether you found in that territory a trade existing, when you went onto the road, for this article corn syrup?

A. Yes sir.

Q. Did that extend over all the territory that you have referred to?

A. Yes sir.

Q. State whether during the time that you traveled this trade continued?

A. It did.

Q. Were you selling under any brands?

A. Yes sir.

Q. Speaking now about the Eau Claire company?

A. Yes sir.

Q. What brand did you sell?

A. Clover brand and the Karo brand.

Q. I will ask you whether the Karo brand had on it the words "with cane flavor" when you first began to travel in 1906?

551 A. That I would not be positive of.

Q. State whether if did later on?

A. In 1906?

Q. Yes.

A. I couldn't say positively.

Q. State whether this Exhibit number 154 is the Clover brand that you refer to, omitting the bottom there, "For Joannes Brothers Co., Green Bay."

A. It is.

(Exhibit 154 hereto attached and made a part hereof.)

Q. Was there anything in the place of the name Joannes Brothers when you were traveling for it?

A. Yes sir.

Q. What?

A. Eau Claire Grocery Company.

Q. Look at Exhibit 155, known as the Karo brand, and state whether that's the brand that you were using at that time?

A. That is the barrel, but the label is a little different.

(Exhibit 155 hereto attached and made a part hereof.)

Q. Here is a label, Exhibit 143.

A. That is the one.

Q. 143 is the one?

A. Yes.

Q. Do you remember whether during that first year of 1906 the label was changed in any way?

A. Not to my recollection.

Q. State whether you continued the sale of both of these brands during 1906?

A. Yes sir.

Q. Did you sell under any other brand?

A. No sir.

Q. You began the next year, January, as I understand you to say, for the Corn Products Company?

A. Yes sir.

552 Q. Under what brands did you sell for them?

A. For the Corn Products Company?

Q. For the Corn Products Company?

A. Are you speaking now of the retail or the wholesale trade, or both?

A. To both. I will ask you there then, did you sell to any trade for the Eau Claire Company excepting the retail trade?

A. No sir.

Mr. OLIX: But for the other you sold both retail and wholesale?

A. Yes sir.

Q. What was your territory when you traveled for the Corn Products Company?

A. Wisconsin and Northern Michigan.

Q. Does that include the whole of Wisconsin?

A. Yes sir, and two cities in Minnesota, Winona and Duluth.

Q. Did you visit all the cities of Wisconsin?

A. All the principal cities, but not all the smaller towns.

Q. State whether you found a trade existing over that territory when you first started to travel?

A. I did.

Q. Do you know whether the same company had had a salesman in this same territory before you went there?

A. Some years before I think, but not immediately preceding my going up there. Well, they had too the first I believe, about four or five weeks, I went with the company in January, and I made a

trip through Iowa and then in Wisconsin, and I have been in this territory continuously since, but during that four or five weeks there were one or two other salesmen in this state representing our house.

Q. Will you look at these labels and state whether you sold 553 any of the goods under any of those labels?

A. Yes sir.

Q. Sold under all of those labels?

A. Yes sir.

Q. Those labels are Exhibits 141, 142, 132, 137, 162, 184 and 185.

A. Yes.

All such exhibits are hereto attached and made a part hereof.

Q. Will you state whether the words "with cane flavor" were on the labels from the time that you commenced to sell in 1907?

A. They were to the best of my recollection.

Q. I notice 184 has on the bottom of it "John Hoffman & Sons Company, Milwaukee."

A. Yes sir. They control that brand in this territory. In fact, that is their private label.

Q. I notice that some of these have at the bottom Davenport Refinery. Was that on the label there at the bottom while you were selling under it?

A. Yes, it had that, and at times it had possibly a stencil "Corn Products Manufacturing Company" or something of that kind.

Q. I notice 132 has at the bottom "Illinois Sugar Refining Co." Was that on the label?

A. Yes sir, and also as I state the addition of the Corn Products—you see these are the old names for some of their refineries.

Q. How long did you continue in the service of the Corn Products Company selling this syrup under these labels?

A. From January 1907 up to the present time.

Q. Have you ever heard these syrups called for by consumers in the retail stores while you were traveling?

A. Yes sir.

Q. Was that something that was often, or otherwise?

A. Quite often. I might say all over the territory for that matter.

Q. How would they be called for?

554 Objected to as irrelevant.

Objection overruled.

A. Called for as "corn syrup."

Cross-examination by Mr. OLIN:

Q. As you stated, you are still in the employ of the Corn Product Company?

A. Yes sir.

Q. And I understood you to say you had been a traveling salesman for something like fifteen years?

A. Yes sir.

Q. Had you prior to the time you specify as working for the Eau Claire Wholesale Grocery Company been selling syrups?

A. No sir.

Q. Hadn't handled them in any way?

A. No sir.

Q. So that was a new line of business for you?

A. Yes sir.

Q. And that I think commenced at the beginning of 1906?

A. Yes sir.

Q. Do you remember whether or not when you first commenced to sell this so-called corn syrup in 1906 that it was simply labeled "corn syrup."

A. I don't believe I exactly understand your question?

Q. Please read the question.

(Question read.)

A. My recollection is that it was labeled corn syrup, yes sir.

Q. And without anything else on the label to indicate that there was any mixture in it?

A. That I wouldn't be positive.

Q. Well, to refresh your recollection, isn't that a fact?

A. I couldn't say that it is a fact.

Q. Well, isn't that your best recollection, and that this putting on of "cane syrup" or "refiners' syrup" came later?

555 A. I wouldn't be positive of that at all.

Q. And that still later there was put on "flavored with cane syrup" or "refiners' syrup"—wasn't that added quite recently?

A. Not to our brand.

Q. Well, wasn't it added after the middle of 1907?

A. I have seen some labels labeled as you mention.

Q. But the most of the labels you dealt with did not have that on, did it, "flavored with cane syrup" or "flavored with refiners' syrup?"

A. No sir.

Q. And most of the goods you put out, as I understand, under these various brands did not have on those words?

A. No sir.

Q. So you would say that this Exhibit 154 with Joannes Brothers' name on it and with "cane flavor" is quite a recent form of label?

A. That I wouldn't state how long it has been on.

Q. Well, does your testimony that you stated a little while ago that it was your recollection that "with cane flavor" or "flavored with refiners' syrup" was quite recent—did that apply to the Karo brand?

A. I don't know that I stated that my recollection was it was quite recent.

Q. You don't remember that—you said so here just a few moments ago?

A. I didn't say quite recently.

Redirect examination:

Q. You say that most of the goods you put out did not have on the brand "with cane flavor"?

A. I didn't say that.

Q. Well, how is that, since January 1, 1907, as to whether the brands did contain that?

A. My recollection is that it did contain those words, but not "flavored with sugar cane syrup" or "refiners' syrup."

556 A. A. SMITH, being first duly sworn, testified in behalf of the defendant- as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Smith?

A. Chicago.

Q. What is your business?

A. I am manager of the syrup department of the Corn Products Refining Company.

Q. How long have you been in that position?

A. Well, since the organization of the present company, about two years and a half.

Q. Before that time what was your business?

A. From 1879 to 1890 I was with the B. B. Skelly Syrup Company, traveling.

Q. Where is that located?

A. Chicago.

Q. For how many years?

A. For nearly eleven years.

Q. And after that?

A. The following ten years to 1899 I was with Bradshaw & Waite.

Q. And then after that?

A. After that I took charge of the syrup sales of the United States Sugar Refining Company at their Chicago office.

Q. And continued how long?

A. Two years.

Mr. OLIN: The Chicago sales of the United States Sugar Refining Company?

A. Yes sir. Then from 1903 to February 1906, I think it was, I was in charge of the sales of the Warner Sugar Refining Company at Waukegan, and from that time until the present with the present company, the Corn Products Refining Company?

557 Q. Do you know an article as corn syrup?

A. Yes sir.

Q. How long have you known that article as an article of trade under that name, corn syrup?

A. I would say thirty years.

Q. Have you ever sold that article?

A. Yes sir.

Q. When did you first begin the sale of that article as corn syrup?

A. 1879.

Q. You were then, I understand, a traveling salesman?

A. Yes sir.

Q. What was your territory as a traveling salesman from 1879 on during the next eleven years?

A. Well, I had all the larger towns in Wisconsin, Minnesota, Iowa and Kansas out to the Pacific coast.

Q. During those eleven years were you handling this syrup under that name?

A. Yes sir, with other syrups, all grades of syrups.

Q. Were they sold at that time under brands bearing names like Kairomel or Diamond Drips, or anything of that kind?

A. No sir.

Q. How were they sold?

A. Why, we sold them under the brand of Number 6 and Number 25.

Q. Was that all there was?

A. "Corn Syrup No. 6" and "No. 25 Corn Syrup."

Q. In what kind of containers was the syrup sold in those days?

A. In barrels and half barrels and kegs.

Q. Did you sell this article all over your territory?

A. Well, to all those points I called.

Q. Well, how minutely did you cover the territory?

A. Well, I made only the larger towns and the larger stores. I called on the larger trade only, not jobbing trade, but the 558 larger retail trade.

Q. Do you know whether that article corn syrup was a popular article under that name?

A. Very.

Q. Beginning when?

A. Well, I couldn't go back of my own experience in 1879.

Q. Well, I mean did it go back to that time?

A. I don't know. I wouldn't say so.

Q. I say did it go back to that time?

A. Oh, yes, it went back to that time.

Q. What opportunity did you have besides the sales you made yourself to know that it was a popular article?

A. Well, it was an easy article to sell. I had to offer as well as corn syrup, I had cane syrup, now called refiners' syrup. Cane syrup up to a year or two before that was the popular article, had been for years, because corn syrup was very little known, but on account of the color and smoother flavor of corn syrup it became popular almost instantly.

Q. Have you heard it called for by customers in the trade as you were traveling about?

A. Well, what do you mean, consumers?

Q. Consumers.

A. Oh, very frequently—that is, in early years—during that first ten years you speak of?

Q. Yes sir.

A. Yes sir.

Q. How would it be called for?

A. Corn syrup.

Q. When you state that do you include Wisconsin?

A. Oh yes.

Q. How early did this syrup begin to be put up in cans?

559 A. Well I would say in 1895—about that.

Q. Well did you ever travel as a traveling man in the sale of this article to the retail trade when it was sold in tin cans?

A. No sir.

Q. Well, after 1895 the sale still continued in barrels, half barrels and kegs?

A. To some extent.

Q. Well, what do you mean by that—as compared with?

A. Well, I mean by that the trade on barrels and packages rapidly decreased and the sale of cans increased proportionately.

Q. Do you know whether sales are still made in barrels and half barrels?

A. Yes sir.

Q. To the Wisconsin trade?

A. Yes sir.

Q. Now, when the sales began to be made in cans in 1895, state what you were then engaged in?

A. In 1895 I was then with Bradshaw & Waite.

Q. That gentleman who was on the stand here the other day?

A. Yes sir.

Mr. OLIN: What year was that?

A. 1895.

Q. Well, while you were with him and this article was put up in cans, how would the cans be branded, if at all?

A. Well, the customers—I was then selling the jobbing trade—

Q. Exclusively?

A. Yes sir, and every customer in each town would have his own particular brand, some would have Silver Drips, Amber Drips, a hundred different names.

Q. Would the parties furnish their own labels?

560 A. Frequently the parties would furnish their own labels, we would allow them so much per thousand for that, and some times we furnished the labels.

Q. How would the syrup be ordered by these jobbers from the concern?

A. Usually under our own number, corn syrup.

Q. What do you mean by that?

A. We had our numbers, No. 2, for instance, No. 5 and No. 10.

Q. No. 10, what?

A. Corn syrup.

Mr. OLIN: You mean Bradshaw had?

A. Yes sir.

Q. If they were branded how would the orders be—what form?

A. Well, some times they would order under their own private brand, other times so many cans or so many barrels of corn syrup. If they were to be branded they would be very particular to specify the brands they wanted.

Q. When did you first know of labels bearing the name corn syrup, labels on the cans?

A. I think about 1900.

Q. You were then with whom?

A. In 1900, I was then with the United States Sugar Refinery.

Q. Were those brands put out then by the sugar refining company itself?

A. What do you mean, those brands?

Q. I meant the labels prepared by the sugar refining company themselves.

A. We had our own labels and customers furnished labels as well.

Q. Did you have more than one brand?

A. Well, you mean the company?

Q. Yes.

A. Well, we had three or four numbers. We sold by numbers.

Q. Barrels?

561 A. Barrels and cans both. We will say our No. 3 was a very popular article, we will say that Joannes Brothers wanted that under the name of Silver Drips, well he would order so many barrels of No. 3 stenciled and labeled according to his own private brand.

Q. Well, I asked you when you first knew of the term corn syrup to be on the brand?

A. To be on the packages?

Q. Yes.

A. Well, I think about that time, I won't be sure.

Q. Well, how early can you be sure?

A. Well, I wouldn't want to say before 1903.

Q. You are now referring to the brands on the cans?

A. I am now referring to the brands on the cans.

Q. Do you know of a brand named Kairomel?

A. Yes sir.

Q. When did you first know that?

A. I couldn't say. I was in competition with that brand, but I couldn't say when I first knew it.

Q. You were in competition with that brand?

A. Yes.

Q. What do you mean?

A. That was put up by a competing refinery. That was put up by the Glucose Sugar Refining Company, as I remember it, and at that time when they put that brand on the market I was with the United States Sugar Refinery Company.

Q. What year was that?

A. That was in 1900, but I won't be sure.

Q. Was it as early as 1903?

A. Oh, yes.

Q. Do you know about the Royal brand of Corn syrup?

A. Well, their factory had a Royal brand.

562 Q. When did you first know that brand, Royal Corn Syrup?

A. Well, it's a general statement, but I would say from the first year they began putting up cans of syrup.

Q. Well, I said Royal Corn Syrup?

A. Well, offhand I would say in 1903 and 1904. I wouldn't say positively as to the time.

Q. Do you remember when the Diamond Drip Corn Syrup brand came out?

A. I couldn't say as to Diamond Drip Corn Syrup.

Q. Golden Glory Corn Syrup, when did you first know of that?

A. Well, I would say about 1905 perhaps, that's merely a guess, I couldn't tell you exactly. It was a competing brand, I hadn't anything to do with that factory and we were fighting it, but I couldn't tell you how far back it was.

Q. Well, could you put that as early as 1905?

A. I think so. I think that is about the time.

Q. Exhibit 132, Goldren Crown Corn Syrup. Did you know of that brand?

A. Not especially. Well, I would say I knew it in a general way. I have no doubt I have seen it many times. That was also a competing brand.

Q. Atlas Corn Syrup?

A. My answer would be just the same.

Mr. OLIN: Well, as to when?

A. Well, about 1905. That is, as "corn syrup" you understand.

Q. When you say 1905 you mean that you know it came out then?

A. About that time.

Q. The Cres-ent Corn Syrup. Do you remember that brand?

A. Yes sir, I would say about the same period.

Q. The Clover brand of corn syrup?

A. About the same period.

Q. Well, you couldn't fix that date, I understand?

563 A. No, I couldn't fix that date.

Q. Karo Corn Syrup, do you remember that?

A. Very well. I think that came out in 1903.

Q. Do you remember when the words "with cane flavor" appeared on these that I have mentioned?

A. Why, it is very recently, within a year I imagine, within a year I should say.

Q. Within a year of now?

A. You are talking of "with cane flavor"?

Q. Yes sir.

A. Oh, for a number of years, cane flavor. I was getting tangled up with "cane and refiners".

Q. Now, to what extent, Mr. Smith, had this product corn syrup been sold by your company, the Corn Products Company, and its predecessors in the state of Wisconsin since the early part of 1905?

A. I mean the amount of sales?

Q. I say to what extent?

A. Well, do you mean approximate figures?

Q. Yes, can you tell?

A. Yes, if I can refer to the note I have.

Q. Yes.

A. These figures are taken from the books of the company.

Mr. OLIN: You haven't those books here?

A. No sir, I haven't. From May 1st to December 1st, 1905, there was approximately 190 cars sold in the state of Wisconsin. This represented about 1,100,000 tin cans, and about 5,000 wood packages, that is, barrels and half barrels, all sized wood packages, some would be kegs too. In 1906 approximately 200 cars, containing 1,250,000 cans and 5,500 wood packages. In 1907 to July 13th same year approximately 120 cars containing 900,000 cans and 1,000 wood packages.

564 Q. State whether any of these cans bore any of the labels that you have referred to here?

A. Many of them, yes sir, many of them, same style of label appeared on the cans that were shipped into Wisconsin.

Q. Were they all labeled either one or the other?

A. They were all labeled something.

Q. Well, what do you mean by that?

A. These cans were all labeled and the barrels were all stenciled.

Q. Well, my question was whether they covered all the labels that you referred to or some of the labels?

A. Well, I presume so—undoubtedly.

Mr. OLIN: Well, do you know?

A. You refer to those labels there?

Q. Yes.

A. Well, if you will go over them again, please. I could mention a good many of the labels if you go over them.

Q. Well, mention them.

A. Well, you mention them there and I will tell you whether they came into the state of Wisconsin.

(Labels handed witness.)

A. The Clover brand for one, Kairomel, Karo, the Royal, Golden Glory, Diamond Drips. Those I know were shipped into this state.

Q. During that period state whether the cans that you refer to, bore one label or the other?

A. Yes sir.

Q. Do you know anything about the sales that have been made to the wholesaler here in this city, Blackburn, I believe, during the last year or part of the last year—under what brand they have been shipped to him?

A. No, I couldn't say.

Q. You hadn't anything to do with anything except the syrups themselves?

565 A. Yes. I have charge of the sugar sales as well, cereal sugar.

Q. Have you charge of the sales, to confectioners and to manufacturers, of glucose?

A. Well, not actively. I have a good deal to say about the sales of all the products.

Q. I will ask you whether since January 1st, 1907, sales by the company have been exclusively through Mr. Reeds?

A. Oh, no, through various channels.

Q. What other channels?

A. Brokers.

Q. Located where?

A. Well, they are located in all the large cities.

Cross-examination by Mr. OLIN:

Q. Mr. Smith, I think you started in 1879 and was occupied for some eleven years as traveling salesman for syrups?

A. Yes sir.

Q. And your territory was Wisconsin, Iowa and all the principal cities clear out to the coast at that time?

A. Yes sir.

Q. And you were traveling, were you, at that time continuously for one firm?

A. Yes sir, for one firm.

Q. I think you said you found when you commenced to travel that this product corn syrup was a popular syrup?

A. Began to be, yes sir.

Q. At that time?

A. Yes sir.

Q. And continued to be a popular brand of syrup all the time that you were engaged in the sale of syrup?

A. Yes sir.

Q. You said you also sold cane syrup and that this syrup by reason of its color was more attractive than cane syrup?

566 A. Yes sir, in part.

Q. I understood you to say that it was sold to the consumer under that name?

A. Yes sir.

Q. And it had established a very wide and general reputation both as to name and as to quality during those eleven years?

A. I do, sir.

Q. It had become very popular, so as to really supersede largely the demand for the older syrups, such as cane syrup and molasses and sorghum?

A. I wouldn't say molasses.

Q. Well, sorghum syrup.

Q. No, I wouldn't say sorghum syrup.

Q. But you would say cane?

A. Yes sir.

Q. Sorghum syrups were still popular?

A. Well, in very, very limited territories, also today.

Q. Practically the only syrup that was popular at all when you commenced to sell the corn syrup was cane syrup?

A. Yes.

Q. I suppose you wouldn't exclude maple syrup?

A. Well, maple syrup was very well known and very well liked.

Q. But the only syrup really that the corn syrup came into competition with them would be maple syrup and cane syrup?

A. Well, I would say that maple—People that buy maple wouldn't buy corn.

Q. So that the consumer came during those eleven years to be very familiar with this term?

A. Yes sir.

Q. And he was very much pleased with it apparently, from your experience—that's the fact, isn't it?

A. I presume so, yes sir.

567 Q. It was sent out under that brand by all the different dealers?

A. What do you mean by that?

Q. The brand corn syrup?

A. We sold it to the dealers, the dealer sold it to the consumer.

Q. Well, you were selling to the large retailer?

A. Yes sir.

Q. Now, let us confine it to the retailer. So that you branded it whatever it was branded when you sold it to the retailer in that way?

A. Yes sir. In 1890 I began selling the jobbing trade.

Q. When was it you began with Bradshaw?

A. 1890.

Q. I have it in 1895 that you went with Bradshaw & Waite.

A. You are mistaken. I think the record will show.

Q. The record will show just as I have it here, I think, but if you wish to correct it, you may do so.

A. Yes sir. Well, I started with Bradshaw—I said I was with the D. B. Skelly Syrup Company for eleven years, from 1879 to 1890 about, and from that time until I was with Bradshaw & Waite, I think I so testified.

Q. You were with Bradshaw & Waite then up to 1890?

A. No, I was with Skelly from 1879 to 1890.

Q. When did you go to Bradshaw & Waite?

A. 1890.

Q. You went to Bradshaw & Waite in 1890 and you remained there how long?

A. Until about 1900.

Q. So you were there ten years?

A. Yes sir.

Q. Now, when you went to Bradshaw & Waite you were engaged in selling the goods that they were putting out upon the market?

568 A. Yes sir.

Q. You sold to these retailers?

A. No sir.

Q. Or to jobbers?

A. To jobbers.

Q. To the wholesalers. And you said that they were demanding that the goods be branded under the names of Honey Drips and Fancy Drips and Table Syrup?

A. No sir, not maple syrup.

Q. I didn't say maple, Table Syrup?

A. Table Syrup, yes sir.

Q. Rock Crystal or Crystal Drips?

A. Yes sir.

Q. Rock Candy Drips?

A. Yes sir.

Q. Or a hundred others?

A. Every imaginable name you could think of.

Q. And none of them demanding the name corn syrup—you agree with Mr. Bradshaw on that?

A. That none of the trade demanded the corn syrup?

Q. None of them had put on the goods the name "corn syrup"?

A. I don't think they did, no sir.

Q. Will you now please explain to the court why it was that if this article had become so popular during the eleven years you dealt with it, 1879 to 1900, is it—

A. Yes sir.

Q. —yes, to 1900, throughout the entire middle west and western country, that is 1900, the men who were dealing in it demanded all these other names and none of them demanded the name corn syrup?

A. Why, the reason was because every jobber wanted his own particular brand, he thought he could put in his brand just a little better than the other fellow and get a little better price.

Q. Although this had become such a popular article under the name of corn syrup?

A. Yes sir. It was all sold as corn syrup.

Q. Is that your only explanation why that term was dropped by all these wholesale dealers?

Q. So they could get a better price for their product?

A. Yes sir.

Q. By selling it under some other name, that's what you mean?

A. Yes, but not as a deception I don't mean to say.

Q. I didn't ask you anything about a deception. For some reason they abandoned that name, didn't they?

A. I have just given you the reason.

Q. They abandoned the name which you said had become so popular?

A. Yes sir.

Q. And the only reason is that they wanted some other name?

A. They didn't want any other name, they sold it as corn syrup, there is no question about that.

Q. How do you know that they sold it as corn syrup?

A. Because the trade demanded it as corn syrup.

Q. How do you know the trade demanded it as corn syrup when you say that these men who bought the article demanded that it be branded something else?

A. Because it had become so popular.

Q. It became so popular that they dropped the name, is that what you mean?

A. No, I don't think the name was ever dropped except on the label.

Q. Didn't you say a moment ago that you agreed with Mr. Brad-

shaw that you didn't put out these goods under any brand of corn syrup?

A. No.

Q. Then they had demanded the country over that that name corn syrup that had become so popular be dropped?

570 A. I wouldn't say so, no.

Q. Now, that is a fact, isn't it?

A. The fact is that they wanted these private brands in order that there would not be that competition.

Q. The fact is they wanted these other brands?

A. I am giving you the fact as I see it.

Q. And you can't give any other reason?

A. A very good reason.

Q. Why, how did you go back to the term corn syrup?

A. Well, for the reason that I think the agitation started when the law of Michigan was passed.

Q. It is for the reason, is it not, that there had been legislation passed in the different states which prohibited your selling these mixtures under these fancy names?

A. Well, not in all the states, no.

Q. Well, in a number of them?

A. A number of them.

Q. And you were dealing in different states?

A. Yes sir.

Q. You went back to the term corn syrup because of the legislation that prohibited the use of these other names for these mixtures?

A. I believe that had something to do with it.

Q. And the reason was that you understood that the names for those mixtures were deceptive and fraudulent?

A. I wouldn't say that they were either deceptive or fraudulent. When a consumer bought, we will say for example Honey Drips, the consumer wasn't being deceived, the consumer knew he was getting corn syrup.

Q. You know that the consumer knew it?

A. I know that the consumer knew it.

Q. Did you think the consumer knew that he was getting 80 or 90 per cent or more of glucose?

571 A. It was so stipulated on most of the labels.

Q. What, at that time, that he was getting 90 per cent of glucose?

A. Why, for many years we have been stenciling 90 and 85 and 80, depending upon the amount of cane we use.

Q. Did you stencil any such percentage prior to about 1903, 1904 and 1905—in there?

A. Well, I couldn't tell you.

Q. You didn't do it, did you, until the legislation required it?

A. Perhaps that's so.

Q. Well, you know it's so.

A. No, I don't know it's so.

Q. Isn't it a fact that you never stenciled or marked any of these packages, either barrels or cans or casks or kegs, containing this

mixture the percentage of either glucose or corn syrup or cane syrup or maple syrup or sorghum syrup?

A. That we never did?

Q. You never did until the law required it?

A. I wouldn't say whether that was so or not. I couldn't tell you. I presume that is the case.

Q. Yes, and you presume so, don't you, because you know that prior to the enactment of those statutes you had been selling this article under these fancy names, not indicating anything other than the name?

A. We didn't sell the fancy cans. We sold out goods under certain numbers. The jobbers stipulated what they wanted on those packages and we put it on.

Q. Some of which you printed you said and others were printed by them?

A. Yes sir.

Q. You sold it in such a way as to make as large sales as possible, didn't you?

A. It didn't make any difference to us, we could sell just as much under the brand "Corn Syrup" as Honey Drips. They wanted corn syrup and wouldn't have anything else.

Q. You say the trade wanted corn syrup and wouldn't have anything else?

A. That's it exactly.

Q. Now, what you mean is that the trade demanded a mixture made up of 80 or 90 per cent of glucose with some kind of cane syrup or sorghum syrup to give it color and flavor—that's what you mean?

A. If you confine yourself to corn syrup, I will answer yes.

Q. You never attempted to sell the unmixed article as a syrup, did you?

A. Yes I have sold the unmixed article as a syrup.

Q. As a syrup?

A. Yes sir.

Q. To whom did you ever sell that as a table syrup (indicating number 1 exhibit).

A. To the retail trade.

Q. As a table syrup?

A. Yes sir, just like that. Not in any large quantity. Occasionally a man would want that.

Q. He wanted glucose, did he?

A. He didn't want glucose, he wanted a syrup, a white syrup.

Q. Will you name any dealer that you ever in your life sold number 1 in its unmixed condition as a table syrup?

A. That looks to me like glucose.

Q. I know it.

A. Well, I have sold glucose as a table syrup. I couldn't give you the names, but if I could go back on my books to the retail trade years ago—only in a limited quantity, a man would want a white syrup.

Q. A white syrup?

573 A. I call that a syrup.

Q. Well, if he wanted a white syrup he would get Rock Candy Syrup, wouldn't he?

A. No he wouldn't get Rock Candy Syrup.

Q. He would get a white syrup then?

A. If you will permit me to explain. You can hardly sell today a Rock Candy Syrup.

Q. I didn't ask you anything about selling today.

A. Well, at any time.

Q. We are dealing now with selling unmixed glucose, commercial glucose, as a table syrup.

A. I am telling you that I have sold that in that condition as a syrup.

Q. For table use?

A. For table use, yes sir.

Q. That's a colorless article without any distinctive flavor and is insipid?

A. Yes sir, it is insipid.

Q. You have tasted of it, haven't you?

A. Yes sir.

Q. You would like that on your griddle cakes, wouldn't you?

A. No. I might not like sorghum, but many people do.

Q. That is the only reason that you wish to give?

A. Yes sir.

Q. Now, do you wish to say and to testify here before the court that it isn't the mixture in with this glucose that has enabled you to sell this article?

A. No, I want it understood that it is a mixture that has made this popular, yes sir.

Q. The only thing that gives any characteristic to the article you sell under the name corn syrup is something you mix in with the glucose, isn't it?

574 A. Yes sir.

Q. And you have known that all of these years?

A. Yes sir.

Q. And you know that people as a rule wouldn't buy glucose as a table syrup unmixed with anything else?

A. Not as a rule, no sir.

Q. Well, you don't want to make much of an exception, do you?

A. No, I wouldn't.

Q. Now, do you wish to say that you didn't have just as much to do with the selling of this unmixed article in barrels as you had to do with selling it in cans for this Corn Products Company?

A. Speaking of the present company?

A. Yes sir.

A. Well, I am in direct charge of the sales of syrup. I am not in direct charge of the sales of glucose.

Q. Who is?

A. Mr. Van Sickle today is in charge of the sales of glucose.

Q. Have you ever been?

A. Not for this company.

Q. He is under you?

A. No sir, he is my associate.

Q. And you said you had a good deal to do with the putting out of the article in barrels?

A. Yes sir. I am consulted, that's all.

Q. And it has always been stenciled, hasn't it, until after this ruling at Washington, as "glucose" when it is put out in barrels?

A. Yes sir, up to recent years, up to a very recent period it has ben sold as glucose. Now it is sold as "unmixed corn syrup".

Q. You sold to grocers here, did you not, between 1879 and 1890, in the city of Madison?

A. Yes sir, I think I have.

575 Q. This was one of your points?

A. Yes sir.

Q. You are familiar, are you not, with the older men that were here in the trade in the grocery business at that time?

A. Well, I wouldn't say that I could remember the names.

Q. Do you know Mr. W. A. Oppel?

A. The name is familiar, but I wouldn't want to say that I knew him.

Q. Did you sell any to him?

A. I couldn't tell you.

Q. Did you deal with him?

A. I couldn't tell you.

Q. You dealt with the main grocerymen here, didn't you?

A. Yes sir, I think I did.

Q. That were here doing business at that time?

A. I called on only the larger dealers.

Q. I would like to know if you ever sold to him any of this mixture that you have been naming here as corn syrup under the name of "corn syrup" during those eleven years?

A. If I sold him I sold him either number 6 or number 25 corn syrup.

Q. You sold that article in the city of Madison?

A. I presume I did.

Q. No reason why you should skip this city?

A. Not at all.

Q. During this entire eleven years can you name a single dealer here in the city of Madison where you sold that article?

A. No, nor I couldn't name a dealer in Wisconsin particularly.

Q. Not one in the state. Could you out in Oregon?

A. No, I couldn't give you the name.

Q. No reason why you can't remember the dealers in Wisconsin as well as elsewhere?

576 A. I could remember here as well as elsewhere.

Q. I think you said something about cane syrup being sort of a dirty substance, that they wouldn't buy it?

A. I didn't say anything of the kind.

Q. Dark colored?

A. It don't necessarily have to be, no sir.

Q. Well, was it dark colore? What was the reason you gave that people preferred this mixture mostly made of glucose?

A. When?

Q. When you began there in 1879?

A. Why, because it was darker in color and very much stronger in flavor.

Mr. FAIRCHILD: What was?

A. The cane.

Q. And yet it was that very syrup mixed in with the glucose that was enabling you, wasn't it, to sell the article?

A. Yes sir.

Q. Did you explain that to the people when you were in competition?

A. I frequently mixed it up for them.

Q. You frequently mixed it up for them?

A. Yes sir, right before their eyes.

Q. Do you know what that article is, Exhibit 160?

A. Well, it looks like a syrup, that's all I could say.

Q. Could you tell us what that is?

A. You mean by taste?

Q. Smelling of it?

A. No, I don't think I could. This smells as though it had molasses in it.

Q. Do you know the color of it?

A. Well, I know it's a light color.

Q. You have dealt in syrups for all your life most?

577 A. Yes.

Q. And you can't tell us what that syrup is?

A. I can't by the smell, no.

Q. Well, taste of it.

A. Well, I don't know as I could by taste. (Tasted by witness.) I would say it was a mixture of glucose and molasses.

Q. I will hand you number 16, what is that?

A. I would say that is a corn syrup. I would say that had some Louisiana Molasses in it.

Q. That is, the first here, number 160?

A. Yes sir.

Q. You don't recognize that as a good quality of cane syrup, do you, Exhibit 160?

A. No, I wouldn't.

Q. Now, do you recognize number 16 as corn syrup?

A. Yes sir, I think that is.

Q. As an expert on syrups which of those do you say is the finer syrup?

A. Well, I should say that was finer.

Q. Exhibit 160?

A. Yes.

Q. Now, you want to say then, with those two articles put up side by side that the consumer would prefer your corn syrup, so-called, to your cane syrup?

A. I would say that, but you know it is just a matter of choice.

Q. Number 16 is your corn syrup, taken from one of your samples, as the testimony shows?

A. Do I understand that that is a straight corn syrup?

Q. Number 16 is a straight corn syrup.

A. The first one?

Q. Oh, the first one is a straight cane syrup. The article
578 that you referred to as being in competition?

A. I don't think it is a merchantable article. I think it is a very hard article to find.

Court: Number 160 is not a cane syrup, is it?

Mr. OLIN: Well I rather think I am misled there. It is a mixture.

A. I was going to tell you if it was a cane syrup it was an unmerchantable article.

Q. I made a mistake. That is your 85% *per cent* of glucose and 15 per cent of good cane syrup.

A. What is that, the same one I tasted before?

Q. Yes, the first one, which you thought was cane syrup.

A. I didn't say it was cane syrup, no.

Q. I thought you did at first?

A. I thought it had a little New Orleans Molasses in it and still think so.

Q. That is the same thing in your mind as cane syrup—you don't make any distinction between New Orleans Molasses and cane syrup, do you?

A. Yes I do.

Q. But it's the flavor in either case, whether cane or molasses, or sorghum, or maple, that enables you to sell this article at all as table syrup?

A. That's right, sir.

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Smith, you have stated that you sell corn syrup in barrels now?

Q. Yes sir.

Q. Do you sell corn syrup in barrels under any other name than corn syrup?

A. Not at all.

579 Q. When you spoke about selling an article in barrels as glucose, to whom are such sales made?

A. To confectioners and mixers of syrups.

Recross-examination by Mr. OLIN:

Q. Was that change by which you now sell this unmixed commercial glucose under the name of corn syrup demanded by the trade?

A. Why, I wouldn't say that that was the case, no.

Q. Well, you know it wasn't?

A. Well, I presume it was not.

Q. It was a change made by this company, was it not?

A. Yes sir.

Q. After that ruling?

A. After what ruling?

Q. After the ruling of the secretaries at Washington February 13, 1908.

A. Well, as a matter of fact I couldn't say when it was or the cause. It originated in New York. We got our instructions in Chicago.

Q. Got your instructions from 26 Broadway, didn't you?

A. Yes sir.

Q. And so now we have got the same name, have we, to designate both the mixed and the unmixed article as put out by the Corn Products Company?

A. Yes sir.

Q. It's corn syrup whether it's glucose or mixed?

A. It is corn syrup, or corn syrup unmixed.

Q. Or whether it is glucose mixed with some article that gives the character that enables you to sell it as a table syrup?

A. As a general principle, I would say, yes.

Redirect examination:

580 Q. When you sell what is called glucose, the unmixed, what name is that sold under?

A. It is sold under "corn syrup"——

Objected to as gone over.

Q. When did you begin to sell under that label?

Objected to as already answered.

Objection sustained.

Mr. FAIRCHILD: He hasn't stated, your honor, when he began to sell this as "corn syrup."

Court: He has so stated, according to my recollection, not fixing the date exactly, but he said a short time ago, as I recall the testimony.

Q. Now, has any of the Madison dealers given your company directions to have their labels or to have his label marked "glucose with cane flavor"?

Mr. OLIN: Objected to as going into that unnecessarily. The only testimony is by Mr. Blackburn, it is uncontradicted and we don't question it.

Mr. FAIRCHILD: That is all right then.

581 Dr. T. B. WAGNER being recalled testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Doctor, when did you first go with the Corn Products Company or any of its predecessors?

A. In 1898.

Q. Have you remained with them ever since?

A. I have.

Q. What time in 1898?

A. The fall. I believe I can give the exact date if desired. I remember having been in the employ of the United States government up to October 15th, and I am sure that I reported in Chicago with the Glucose Sugar Refining Company in 1898.

Q. Then with what other companies?

A. The Corn Products Manufacturing Company, the Corn Products Company and the Corn Products Refining Company.

Q. Were they all located in Chicago?

A. Yes, although the headquarters of the company at times were in New York City at 26 Broad street.

Q. Well, did they have their factories in Chicago?

A. In Chicago and in the west generally.

Q. Where in the west?

A. In Illinois, Iowa, Nebraska, Indiana.

Q. They had factories in all those places?

A. Yes sir.

Mr. OLIN: In Ohio did you say?

A. In Ohio, yes.

Mr. OLIN: Did they have any factories in Illinois?

A. Yes sir, several.

Q. Are you acquainted with the name "Corn Syrup"?
582 A. I am.

Q. Since what date?

A. Very soon after my entrance into the corn products business. To my distinct recollection as far back as 1900.

Q. Has this article been manufactured under that name by these various companies that you have referred to?

A. It has been sold under that name by these various companies and manufactured of course too.

Q. When did the manufacturers of glucose begin the manufacture of a table syrup?

A. In cans or in bulk?

Q. Yes, either.

A. It was done on a small scale in the 90's.

Q. Beginning when in the 90's?

A. I do not know. It was a small concern, they ground about five thousand bushels of corn a day I believe or less even, taking it as an average.

Q. When did it begin to be manufactured as a syrup to any considerable extent by the producers of glucose?

A. 1899-1900.

Q. Before that by whom was it produced?

A. By the mixers. The mixers are parties who buy from us the glucose in bulk; tank cars or in barrels, they also buy various kinds of other syrups, and they blend them, and therefore they are known to the trade or among the trade as mixers.

Q. Well, these companies that you have been with, when did they begin to put out table syrup under the name of corn syrup?

A. As early as 1900, I am sure of that.

Q. In those days was it put out in cans at all or in other containers?

A. In 1900?

583

Q. Yes.

A. It was put out in cans and other containers.

Q. What other?

A. In barrels, kegs, pails, jacketed cans—I mean by that large size cans; kits probably too.

Mr. OLIN: In pails, kits, kegs?

A. Kegs.

Q. And cans?

A. Yes. I said jacketed cans in distinction from our ordinary cans. The jacketed cans have a jacket of wood. They are all sized cans; five gallons, ten gallons, twenty gallons.

Q. Does the trade still continue in that same form to a certain extent?

A. It does.

Q. I mean in those same containers?

A. Yes sir, exactly.

Q. When your companies began to first put out this commodity as a table syrup under this name, about what proportion would you put out in cans that were put up in boxes of say five, ten, twenty cans?

A. I have no figures at my command that would give the exact percentage, but if I am permitted to state it roughly I would say by far the largest part was put up in cans.

Q. Beginning as far back as 1900?

A. Oh, yes sir.

Q. In what way were those cans branded, what labels if any did they bear, beginning at that time?

A. Our refinery labels, the largest number of them, were corn syrup labels.

Mr. OLIN: The refinery labels—that is, the sugar refinery?

584 A. Those are our labels in distinction from the trade labels.

Mr. OLIN: You mean of these different companies?

A. I am talking about the period of 1900. I can testify to only one company.

Q. What company is that?

A. The Glucose Sugar Refining Company, later on known as Corn Products Manufacturing Company.

Q. Now I will ask you there in order that we may have no mistake, what companies did the Corn Products Manufacturing Company succeed to or absorb to it in that way?

A. The Corn Products Manufacturing Company was known at the time of its charter organization as the Glucose Sugar Refining Company and had acquired by purchase the American Glucose Company, the Chicago Sugar Refining Company, the Firmenich Manufacturing Company, the Davenport Syrup Refining Company—I am not quite sure of that name, however—and some sugar

refining company located in Rockford, Illinois, whose name is not at my command either at this moment.

Mr. OLIN: He uses the term Corn Products Manufacturing Company purchased out these companies. Now that is not the name of the present company?

Mr. FAIRCHILD: No, that is Refining Company.

Mr. OLIN: Could you state the date when that purchase was made?

A. It took place August 1st, 1897, thereabouts, during that summer.

Q. Did the succeeding companies operate the factories of those different companies which it purchased?

A. It did.

585 Q. Clear down to date?

A. No sir.

Q. But for a number of years?

A. For almost ten years.

Q. Well, was the product from each of these factories put out under the same brands?

A. The syrup business was concentrated in one factory, located at Davenport.

Q. You say they were put out under the brand of "Corn Syrup"?

A. Yes sir.

Q. Was there anything else on the brand than that or were those the words on the brand?

A. There was a qualifying brand like Golden Glory Corn Syrup, and others.

Q. Do you know any other brands?

A. Not very distinctly, because the first three years of my connection with the Glucose Company I came very little in contact with the syrup end of the business; so the later labels I have better in mind than those early ones.

Q. Was there anything else on any of the other brands, except this Golden Glory brand, did the others have a name also?

A. Yes sir, they had.

Q. You put out more than one other brand than the Golden Glory?

A. Under the name of "corn syrup"?

Q. Yes.

A. Oh, indeed we did.

Mr. OLIN: What date now?

Mr. FAIRCHILD: 1900.

Q. Were those the company's brands?

A. Those were refinery brands, yes sir.

586 Q. Was any of this brand put out under the brands of jobbers?

A. I hardly think so. I hardly think so.

Q. Were they later on?

A. I don't think so.

Q. Did your company put out any brands that did not bear the name "Corn Syrup"?

Objected to as leading and suggestive.

Objection sustained.

Exception by defendant.

Q. State whether the words corn syrup were or were not on all brands?

A. I don't think they were.

Q. On what brands did these words not appear?

A. On quite a number of brands. It took us a long time to weed out the brands which we later on discontinued. Those were brands similar in character to those which we still continued putting out for the jobbing trade under their own labels.

Q. Now did you put out after 1900 any syrup under the brands of jobbers or dealers, their own private brands?

A. We did.

Q. Those are the brands that I am calling your attention to, as to whether they bore the name "corn syrup"?

A. Yes, they were.

Q. All of them?

A. No sir.

Q. Up to what time did you continue to put out any brands which did not bear the name of corn syrup?

A. The label bears the name "corn syrup" in one form or another. It is either in the title, in the name of the product itself or it appears somewhere on the label, as information to the public, to the consumer.

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Q. You mean clear back to 1890?

Objected to as leading and suggestive.

A. No.

Court: The answer may stand.

Q. What date did you discontinue putting out any labels not bearing the name corn syrup?

A. We had not discontinued that altogether, as I tried to explain. For instance, we will put out, and we are putting out today, still labels—if you will permit me I will take the Golden Glory illustration, although it does not satisfy this particular illustration, Golden Glory Table Syrup, and in the same space that contained the words "Table Syrup" we put in prominent type "90% corn syrup, 10% refiners' syrup" as the case may be. Now in this case the words "corn syrup" don't appear directly in the name of the brand itself, but the consuming public is aware that it contains corn syrup.

Q. Did you begin back as far as 1900 to do this?

A. We began as far back as 1900 introducing the name "corn syrup", replacing other brands in that way.

Q. Well, state when you had replaced brands that did not bear the name in any way of corn syrup, either in the name of the syrup or in the proportions of the ingredients?

A. That is quite hard to answer, Mr. Fairchild, because naturally

some time elapsed from the date or the day when instructions are given to discontinue until they are actually discontinued. Naturally there is a large job involved. You have got to go to your printers and to the engravers and it takes them months and months to get the new labels out, and of course in that way I can't answer your question.

588 Q. Well, can't you give us any date approximately even when your company discontinued putting out any labels that did not bear the name corn syrup in one way or another?

A. It must be several years.

Q. Well, several—what do you mean by several—can you give us any idea now?

A. I should say that from 1903 on practically we were on a strictly corn syrup basis.

Q. Is there any reason why you name the year 1903 as the date?

A. Because we started in that year on an active advertising campaign preaching the gospel of corn syrup.

Q. Who conducted that advertising campaign?

A. N. W. Err & Son, Philadelphia; more particularly by H. N. McKinney, who has testified in this case.

Q. Were you a director of the company at that time?

A. I was.

Q. Familiar with what went on?

A. Yes sir.

Q. Can you tell us how much money your company expended in the advertising campaign of 1903 and 1904?

A. Something like five hundred thousand dollars.

Q. Did you begin as early as that on this Karo corn label?

A. Advertising?

Q. Advertising and selling?

A. 1903. It was put out in 1903. The experiments were made in 1903.

Q. Has the sale of that been continuous?

A. Yes sir.

Q. To date.

A. Up to date.

589 Q. To what extent, I don't mean in dollars and cents, but to what extent is that true in regard to states in which the sales have been made—whether it includes the whole United States or not?

A. The advertising?

Q. The sales?

A. Oh, the sales of corn syrup I should say, broadly speaking, that they reach every state of the Union.

Q. In Canada also?

A. In Canada also, yes sir.

Q. State whether the sales are as extensive in other states as in Wisconsin?

A. I think that Wisconsin is one of our good, large corn syrup states. That is, I mean by "large" that the state calls for quite a supply of corn syrup, a considerable amount of it.

Q. Of other states in the same proportion?

A. Yes, I mean Wisconsin is among the leading states.

Mr. OLIN: I object. This witness don't need to be led. Why don't you ask him what the sales are in the respective states?

Mr. FAIRCHILD: Well, I don't care what the sales are now. I just want to get at whether they are as extensive in other states as this.

Mr. OLIN: Well, I have every reason to believe that they are different, and that throws the burden on me.

Q. Are you familiar with the manufacture of glucose?

A. I am.

Q. From the beginning to the end of it?

A. Yes sir.

Q. I will ask you, before I go into anything on that question, under what name your sales to confectioners and manufacturers have been made of the unmixed glucose?

590 A. Under the name of "Glucose."

Q. Do you make any exceptions here in Madison?

A. No sir.

Q. Do you mean up to the present date?

A. I don't quite get the question?

Q. Was the change made in the name under which the present sales are made recently?

A. Yes, we have adopted the policy of applying the name "corn syrup" to the unmixed article as well as to the mixed article.

Q. Well, any name connected with that?

A. "Unmixed." This was done to bring about a uniformity in our business, in our billing invoices, etc.

Q. State what the first stage is in the manufacture of glucose after the corn is taken in the kernel to be converted into glucose?

A. Well, we soften the corn by soaking it in water, there are a few successive steps, and we finally reach the green starch as described by Professor Chandler yesterday.

Q. Now is this green starch a commercial commodity?

A. No sir. But the corn is a commercial commodity.

Q. State whether it is ever sold as a commercial commodity?

A. No sir.

Q. Is there a different process in the manufacture of corn starch and laundry starch?

A. Yes.

Q. What care is taken, doctor, in the manufacture of glucose to insure a pure and wholesome article? I mean the degree of care.

A. I think it's an extreme degree of care. Our product from the time the product is delivered to the factory, the corn never comes in contact with the hand of an operator. We have the most
591 sanitary conditions. All the handling of the material is automatic, by machinery. The greatest cleanliness is observed. I don't think it is easy to find any food factory where more sanitary, cleaner conditions exist than in our up-to-date factories.

Q. Well, state as to the course of manufacture itself, whether any deleterious—

A. There is nothing introduced that could in any way prove injurious to the resulting glucose or the starch for that matter, the corn starch, all the materials are carefully tested.

Q. What do you mean by tested?

A. In every way, to safeguard against everything, the same as a manufacturer of cane sugar or other material, all employing clarifying agents and the like; you want to be assumed that your materials are of the required standard.

Q. Are men employed especially for that?

A. Yes sir.

Q. Do you know whether Dr. Wiley of Washington was a member of the United States committee on food standards when Circulars Nos. 10, 13 and 17 were issued and promulgated?

A. Yes, to my own knowledge, because I met him on various occasions before the committee.

Q. Are you acquainted with the fact as to whether Sprague, Warner & Company put out a published price list?

A. I am.

Q. Is that a wholesale house in Chicago?

A. It is a wholesale grocery house in Chicago.

Q. I will ask you to look at Exhibit 186 and state whether that is one of their price lists?

A. It is.

Mr. FAIRCHILD: We offer in evidence the quotation on page 26 of this price list of "Karo Corn Syrup, in 2, 5 and 10 lb. cans

Mr. OLIN: What is the purpose?

Mr. FAIRCHILD: For the purpose of showing that it is a commodity that is on the market for sale.

Mr. OLIN: As to the price of it?

Mr. FAIRCHILD: No, I don't care anything about the price. I don't offer the price at all. Under date of July 1st, 1904.

Mr. OLIN: It seems to me we ought to have a more recent date.

Mr. FAIRCHILD: I purposely went back to get an earlier date.

Mr. OLIN: Have you got some later ones?

Mr. FAIRCHILD: We have some later ones here.

Q. I will ask you if McCord-Brady Company are wholesale grocers and if so where do they carry on their business?

A. Omaha, Nebraska.

Mr. FAIRCHILD: I will read into the record the part that I wish from Exhibit 186. Under the head of Syrups is: "Karo Corn Syrup. 10c. tins (2 lbs.) 24 in case. 25c. tins (5 lbs.) 12 in case. 50c. tins (10 lbs.) 6 in case."

From Exhibit 187, McCord-Brady Co., under head of "Corn Syrup, No. 99. Light cane drips, bbls. and ½ bbls." Then "Kairomel," giving the pounds and cans, 20 lb., 10 lb., 5 lb. and 3 lb. cans.

Mr. OLIN: Give us the price.

Mr. FAIRCHILD: 20 lb. cans, \$1.55 per case; 10 cans, 6 in case, \$1.55; 5 lb. cans, 12 in case, \$1.75. 3 lb. cans, 24 in case, \$2.95. Then the Karo follows that. 10 lb. cans—what is that (indicating)?

A. Ten cent cans.

Mr. FAIRCHILD: 10c. cans, 24 in case—I want it to appear here that I am reading these prices at the request of Mr. Olin and not on my own motion.

Mr. OLIN: Yes. I object to the testimony, but if you put it in I want these prices.

Mr. FAIRCHILD: 10c. cans, 24 in case, \$1.84; 25c. cans, 12 in a case, \$2.30; 50c. cans, 6 in a case, \$2.30.

Q. I will ask you to look at this Exhibit 187 at page 38 under the head of "Corn Syrup" and ask if the "Rock Candy Syrup" under that heading is any of your brand?

A. No sir.

Q. And "Champion Syrup Refining Co." is that your brand?

A. No sir.

Q. And "Advo Table Syrup No. 1", is that your brand?

A. No sir.

Mr. FAIRCHILD: There seems to be three other brands of syrup under that general heading.

COURT: What is the date of that catalog?

Mr. FAIRCHILD: The date of this catalog is September 1904.

A. I don't know whether the first one is ours or not. "No. 99 Corn Syrup." And they say "Cane Drips." That is not ours.

Q. You say this Corn Syrup No. 99, Light Cane Drips, is not yours?

A. No sir, not our brand. No. 99 Corn Syrup may be ours, but Light Cane Drips is not ours.

Q. I will show you Exhibit 188 and ask you what that is.

A. That is a copy of "Trade," an independent weekly journal for merchants, published at Detroit, Mich., and issued February 15, 1905.

594 Mr. FAIRCHILD: On page 23 I offer in evidence what appears under the figures 16 at the head of the column and what appears under "Corn" and what appears under "Corn Syrup."

Q. I will ask you if that first heading "Corn" refers to syrups?

A. There is "Molasses" and "Corn," "Corn Syrup," "Pure Cane" on the headlines, and the word "Corn" means to everybody in the trade "Corn Syrup," although it is repeated after that.

Mr. FAIRCHILD: In the list headed "Corn" is "Barrels," "Half Barrels, Gallons, Hf. gallons, 2 lb. cans." Right below that under the heading "Corn Syrup" is "Karo, 24 10 lb. cans—"

Mr. OLIN: It is carried out how much?

Mr. FAIRCHILD: \$1.84. 12 5 lb. cans, \$2.30. Karo, 6 10 lb. cans, \$2.30.

Q. Do you know of the C. S. Morey Mercantile Company?

A. Denver, Colorado, yes sir.

Q. Is Exhibit 189 one of their price lists?

A. Yes sir, that is one of their price lists.

Mr. FAIRCHILD: It is headed "1906 Catalogue." It doesn't give any particular date. On page 60 under the head of "Syrups and Pail Jellies" occurs in a heading "Corn Syrup"—Golden (Blue Label) and under that: "Barrels, Golden, per gal." not carried out. "Half barrels, Golden, per gal." not carried out. Then "Jacket cans, 2½ gal. Golden 29 lbs." No prices here at all. "Jacket Cans, 2 gallon." Then "Cases, 3 20-lb. cans (71 lbs.) Cases 6-10 lb. cans (75 lb.-) Cases 12 5 lb. cans (74 lb.-) Cases 24 2 lb. cans (61 lbs.)."

Q. I call your attention to Exhibit 190 and ask you if that is the price list of any wholesale grocers?

A. That is the price list of the A. MacDonald Company of 595 Winnipeg, Manitoba, received by me.

Mr. FAIRCHILD: On page 25, under the head of "Syrups", dated May 2nd, 1907, is "Crown and Bee Hive Corn Syrup in ½ bbls". Then under that is: "2-lb. tins Davenport's Corn Syrup, 2 doz. tins in case, per doz. \$1.20."

Q. Calling your attention to Exhibit 191 I ask you what that is?

A. That's the price list of J. M. Anderson Grocer- Co., wholesale grocers, St. Louis, issued January 11, 1907.

Mr. FAIRCHILD: In column 41 under the heading "Syrups" is the following: "Corn, light or dark, bbls. per gallon .24."

Q. I call your attention to Exhibit 192 and ask you what that is?

A. This is the New England Grocer, published at Boston, Mass. January 11, 1907. It's a trade paper issued for the grocery trade.

Mr. FAIRCHILD: On page 45 in column 18 under the general head of "Syrups" is found "Karo Corn Syrup" and under "Karo Corn Syrup" is found: "10 cent pkg. 2 doz. tins 1.84. 25 cent pkg. 2 doz. tins, 2.30. 50 cent pkg. ½ doz. tins, 2.30."

Q. I show you Exhibit 193 and ask you what that is?

A. Jordan's Western Grocer, the weekly price list of W. B. and W. G. Jordan, published at Minneapolis, Minn. January 12th, 1907.

Q. Is this a trade journal?

A. No, it is a price list.

Mr. FAIRCHILD: On page 9 in column 17 under heading "Sorghum" then there is a subdivision under it "40% Sorghum, 60% Corn Syrup", and under that "Choice, bbls." and carried out ".38", then "Choice ½ bbls. .40; Choice ½ gal. 1 doz. in case, per case, \$2.50; Choice, 1 gal. ½ doz. in case, per case \$2.40; Choice, 2½ lb., 2 doz. per case \$2.60."

Q. I will show you Exhibit 194 and ask you what that is?

A. That is a copy of the Merchants' Index, a trade paper for the retail trade, published at Denver, Col., January 19, 1907.

Mr. FAIRCHILD: In a column headed "Syrups" appears a subdivision headed "Corn." Under that last heading of "Corn" is "Barrels, per gal. .32; 20-lb. cans, 3 in case, 2.20; 10-lb. cans, 6 in case, 2.10; 5-lb. cans, 12 in case, 2.25; 2-lb. cans 24 in case, 1.85; 2¼ gal. jackets, .87."

Q. I show you Exhibit 195 and ask you what that is?

A. Copy of the Weekly Price Current of Winston, Harper, Fisher Co., wholesale grocers, Minneapolis, Minn. January 26, 1907, and received by me.

Mr. FAIRCHILD: On page 9 of that, under the head of "Syrups" is "Diamond Drips (Best Corn Goods)," by barrels, kits and half-barrels.

Here I have a list called the Commercial Bulletin and Northwest Trade, dated January 26, 1907. This is evidently a trade journal. On page 43 in column 15 is found under the heading "Corn Syrup" quotation of prices per barrel, half-barrel, five and ten pound kegs (Marked Exhibit 196).

Michigan Tradesman, of Grand Rapids, Mich. a trade journal. On page 45, February 6, 1907, in a column headed "syrups" under the subdivision headed "Corn" is quoted the price by barrels, half-barrels, cases containing 20 1-lb. cans, 10-lb. cans, and 5 1-lb. cans, and 2½ 1-lb. cans. (Marked Exhibit 197.)

I have here a price list, marked Exhibit 198, Wulfling Grocer Co., wholesale grocers of St. Louis, February 9, 1907, on page 3 under the heading "Corn Syrup" under that "Light or Dark" is quoted per gallon that article in barrels and half barrels.

Exhibit 199 is the Weekly Price Current of Winston, Harper, Fisher Co., wholesale grocers of Minneapolis, dated February 9, 1907, and on page 9 under a heading "Syrups" is "Diamond Drips (Best corn goods)" prices quoted in barrels, half barrels, kegs and kits.

Exhibit 200 is Sprague, Warner & Company's price list, dated February 15th, 1907, under a general heading "Corn Syrups, 85% corn syrup, 15% refiners' syrup" is quoted prices, put up in a large number of ways, barrels, half-barrels, jacket cans and in different pound packages, 10, 5, 4, 3½, etc.

Exhibit 201 is another number of the New England Grocer under date of February 22, 1907, which quotes the prices in "Corn Syrup" in the same ways.

Here is another one of Winston, Harper, Fisher Co. Here are later editions under later dates of Merchants' Index, and Wulfling Grocer Co., J. M. Anderson Grocer Co.

Exhibit 202 is The Toledo Grocer, The Dow & Snell Co., under date of February 20, 1908, page 13, under general column of "Syrup" is quoted the prices of Karo Corn Syrup in its different packages.

Here is a later publication also from McCord-Brady Co. of Omaha under the date Spring 1908.

Exhibit 203 we offer, being the wholesale and retail price list of Wm. Steinmeyer Company, Milwaukee, under date of June 1st,

1908, page 4 under the head of "Syrups and Molasses" is the Kairamel Corn Syrup, in parenthesis after it "Table Syrup", quotes the prices in 2 1-lb. cans, 5, 10 and 20 1-lb. cans.

Here is another price list of C. S. Morey Mercantile Company for 1908, also quoting on page 32 the price of "Corn Syrup" in its various containers; barrels, half-barrels, etc.

Exhibit 204 is a Grocers' Bulletin published monthly by Louisville Grocery Company of Louisville, Kentucky, under date 598 of June 1st, 1908.

Exhibit 205 is The Seudders-Gale Grocer- Co.'s price list dated June 4, 1908, St. Louis. On page 13 under the head of "Corn Syrup"—but it reads "Economy Sugar Drips—Corn Syrup", quotes the price of that article in different kinds of containers and then specifically, "No. 40 Corn Syrup, light color, .29, No. 35 Corn Syrup, medium dark, .29".

Here are subsequent quotations from Winston, Harper, Fisher Co. in June 1908, and also of MacDonald in June 1908.

Exhibit 206 is W. M. Hoyt Company's price list, June 8, 1908. Page 51 of that price list, under the column headed "Syrups" is "Corn Syrups in wood packages", quotes the price, then, "Extra Corn, light color, good body, nice flavor, one of the best sellers we have", prices quoted in barrels, half-barrels, and jacket cans".

Exhibit 207 is current prices of John Orr's Sons, wholesale grocers, Steubenville, Ohio, and on page 11 under head of "Syrups" quotes "Karo Corn Syrup" in 2 lb. cans, 2 dozen in a case.

Exhibit 208 is the Twin City Commercial Bulletin of June 20, 1908, Minneapolis, under the head of "Syrups and Molasses" refers to the condition of the market on "Corn Syrup."

Q. I show you, doctor, Exhibit 209, and ask you what that is and, if you know, the standing of that publication?

A. This is the American Grocer, issued August 15th, 1908, it is published by Mr. Barrett of New York, and considered the leading paper in the United States devoted to the wholesale grocery trade. It doesn't refer to "corn syrups."

Mr. FAIRCHILD: Under the head of "Glucose", under date of August 5th, 1908, there is "Quotations for Carload Lots", it 599 gives "Glucose, 42 deg. crystal. 2.73; 43 deg. crystal, 2.78; and 44 deg. crystal."

Then below that is "Mixtures", "Mixed Syrup". Then in the same journal a week later, August 12, 1908, on page 36, under the column "Corn Syrup" is "Quotations for Carload Lots", then comes "Glucose 43 deg. crystal", just the same as before, then under that "Mixtures", "Mixed Syrup" (Issue of Aug. 12th marked Exhibit 211).

Exhibit 210 is The Inland Grocer, published at Cleveland and Chicago, September 26, 1908, under the head of "Syrups" on page 27 is "Extra Corn", prices quoted in barrels, half-barrels, and 5 and 10 gallon kegs and cases, 2½ lb., 5, 10 and 20 lb. cans.

Q. Do you know the attitude of the state food departments of the different states, or a number of them, on the subject of the name of this article "Corn Syrup."

Objected to as incompetent and immaterial.

COURT: How is that material?

Mr. FAIRCHILD: Well, in the case from Michigan the supreme court seems to think that it is a matter to be considered, and they state in that case—they refer to that fact which is stated by counsel, they say, but which they haven't had the opportunity themselves to investigate (so that they would take judicial knowledge of it) and it is simply material to show the general recognition of this name by the food departments of other states, simply to show, as I am endeavoring to show, not only the publicity, but the general recognition of the name as a proper name applied to this article. They refer to that in this opinion here as of some significance in regard to the general recognition of the article. Of course our position will

be that if this is an article which does not deceive as to its name, then the state has no right to forbid its citizens its use.

And as going to show the general recognition of the name, as well as the publicity of it, the notoriety of it, the public knowledge of it, common knowledge, its acceptance by the food departments of the other states of the Union under food laws.

(After discussion and argument the question was withdrawn by defendant's counsel.)

Cross-examination by Mr. OLIN:

Q. I will ask you first, doctor, a few questions as to your connection with this business. You by profession and training are a chemist, are you not?

A. I made a study of natural sciences in general, engineering, particularly chemistry.

Q. Are you a graduate from some institution?

A. I am.

Q. What institution?

A. University of Wurtzburg, Germany.

Q. And you have devoted yourself to what particular line in chemistry?

A. Applied chemistry and the study of food chemistry.

Q. Has that been true since you have been connected with the Corn Products Company or its predecessor?

A. Oh yes, naturally.

Q. Now I think you said you were a director of the company?

A. I was.

Q. Are you now?

A. I am not.

Q. That is you were one of the directors of the Sugar Refining Company?

601 A. No, of the Corn Products Company.

Q. Of the present name?

A. The Corn Products Company and of the Corn Products Manufacturing Company both.

Q. It was the Corn Products Manufacturing Company I think that you said gathered in these other companies you named in August 1897?

A. I have no personal information. I don't think I used that expression.

Q. Well, you named the companies?

A. Yes—

Q. Bought up?

A. Well, negotiations of some kind. I am not familiar with the detail of that.

Q. Now when was it that the Corn Products Refining Company—is that the name now?

A. Yes sir.

Q. When was it that that name came into existence?

A. In the spring of 1906.

Q. Did that become the owner of all these preceding companies?

A. Practically so, yes.

Q. And as you understand did it purchase from the Corn Products Company or Corn Products Manufacturing Company?

A. Purchase?

Q. Yes, all these plants.

A. No, I don't think so. It was an arrangement among stockholders. It was an exchange of stock into the Corn Company.

Q. All the parties that were interested in the old company became interested in the new?

A. Yes, by an exchange of stock.

602 Q. So it was really the successor to the other company?

A. In a practical way, yes.

Q. Have these various branches under these different names continued to do business under their separate names?

A. No sir.

Q. Is it all now conducted under one name?

A. Yes.

Q. And at all the different plants?

A. Oh, yes, all under one head.

Q. So that the plant out at Davenport, Iowa, don't any longer send out goods under the name of the Corn Products Company?

A. No sir, it is all Corn Products Refining Company.

Q. Or Davenport Refining Company?

A. No sir.

Q. It is all Corn Products Refining Company now?

A. They may use their label on it, but there is a stamp on it with the name of the successor too.

Q. That has been done?

A. Yes sir.

Q. Now does the present company control, or comprise rather, I will put it that way, all of the companies or plants that are manufacturing glucose in this country?

A. No, not by any means.

Q. How is it with reference to this middle west section, including Illinois, Michigan, Ohio, Indiana, Iowa, Nebraska and Wisconsin—Are there any other companies doing business?

A. That's where most of the others do business.

Q. Will you name some of them, doctor?

A. There is the American Maize Products Company.

Q. Where is that located?

603 A. They are located in Chicago and their plant is located outside of Chicago at Roby, Indiana. There is the Edinburg Starch & Refining Company out in Edinburg, Iowa. The Clinton Sugar Refining Company at Clinton, Iowa. There is the Hubinger Brothers at Keokuk, Iowa; I don't know what the name of the company is; I believe it is Hubinger Brothers.

Q. Are those small or large concerns?

A. Large concerns. There may be some more starch factories.

Q. Do you know what the capitalization of the present company is?

Mr. FAIRCHILD: I object to that as immaterial, not addressed to any issue in this case.

Objection sustained.

Q. Who is the president of the company, the present company?

A. The Corn Products Refining Company?

Q. Yes.

A. Mr. E. T. Bedford.

Q. Is he the same Mr. Bedford whose name appears in the proceedings at Washington?

A. Yes sir.

Q. On the hearing?

A. On the hearing, yes sir.

Q. And where is the main office of the company?

A. New York City.

Q. At what place?

A. 26 Broadway.

Q. They also have an office at Chicago?

A. Yes sir.

Q. How many branch establishments has the concern now—as many as when it purchased or reorganized in 1906?

Objected to as immaterial.

604 Mr. OLIN: I wanted to find out whether all of these he named on direct examination were continuing.

Objection overruled.

Exception by defendant.

A. Part of the old factories are still operating; others have been put out of commission and replaced by modern works.

Q. Can you state the number that there are now?

A. Oh yes.

Q. How many?

A. I would have to count them. Edgewater, New York; Waukegan has got two; Davenport; Pekin, Ill. Granite City; Chicago; Seven glucose factories.

Q. Are there other factories besides those?

A. No.

Q. You speak of so many glucose factories. Is there a factory that is different?

A. I mean to say that some of those glucose factories manufacture starch. They all make glucose, but they make other things, some of them.

Q. They all make glucose, but they may make other things?

A. Yes, they may make other things out of corn.

Q. Are you a stockholder of the present company, doctor?

A. I am.

Q. Just what is your position? I mean have you any other than you have stated? Are you in any official position?

A. I have none at the present. If I am supposed to answer that I would have to go back a little farther.

Q. Well, I don't quite understand that.

A. I am not the chemist of the company, if that is the point you want.

605 Q. You are not the chemist of the company?

A. No.

Q. Well, have you any official position now?

A. I believe my position is well known to the management. I have no official title. We don't carry titles.

Q. And you have no objection to stating it?

A. No, indeed not. My principal work is the extension of our business both in a manufacturing way and in a commercial way, that is, developing new markets for our products, developing new products. I assist generally in the manufacture of our products. I am consulted in a great many matters.

Q. And are familiar with the business and have been for the last ten years?

A. Yes sir.

Q. Are you familiar with a book that I show you entitled "Statistics of the Glucose Industry?"

A. I have seen it before and I have read it.

Q. Did you have anything to do with the preparation of it?

A. No sir, as the date shows, that was printed before I entered the company, about a half a year before.

Q. April, 1898?

A. I entered the company October 17, 1898.

Q. That was gotten out by the Glucose Sugar Refining Company, wasn't it?

Mr. FAIRCHILD: If you know.

A. It says though, compiled by the Glucose Sugar Refining Company.

Mr. FAIRCHILD: That isn't the question asked you. He asked you if you knew.

A. I don't know by whom it is gotten up.

Q. Isn't that one of the companies that went into this combination or organization in 1897?

606 A. No, this is the result of the combination.

Q. This is the result of the combination?

A. Yes, this is the parent company.

Q. And you went to work for that company soon afterwards?

A. About a half a year after this.

Q. Now, you are familiar with the pamphlet?

A. I have seen the pamphlet and read it.

Q. And you know what is in it?

A. I don't know, I was surprised yesterday when you read it. I had forgotten it entirely.

Q. You were familiar with it at the time?

A. Not very well. I was not interested in it.

Q. Now, I think you said that you had known of this article being sold under the name of corn syrup for how many years?

A. I said to my own knowledge since 1900 at least.

Q. You never had heard of it before that or didn't know of it?

A. Well, I think I had, yes.

Q. Do you know whether or not that term is recognized anywhere in that compilation by that company at that time?

A. I couldn't say without consulting the pamphlet.

Q. That was gotten out, was it not, to oppose a proposed tax bill?

A. That was the point I was just speaking about, I didn't know that, what the object really was, until you mentioned — yesterday. I had forgotten that entirely.

Q. It purports to be signed, does it not, by this company, the Glucose Sugar Refining Company, on page 6?

A. Yes sir.

Q. And that is the company you commenced to work for soon afterwards?

A. Yes sir.

Mr. OLIN: We offer in evidence the last paragraph of that publication.

607 Mr. FAIRCHILD: I object to this for two reasons, it doesn't bind this defendant or attempt to bind this defendant, not shown in any way connected with any person in interest in this case, and the contents of it are immaterial.

Objection sustained.

Q. Do I understand from your testimony, Dr. Wagner, that you claim there is any difference between the starch out of which this glucose is manufactured, and any other starch?

A. Why, most decidedly.

Q. Have you always entertained that view?

A. Why, I have.

Q. On page one of this same pamphlet is there a statement here as to the starch that is manufactured by that company, the parent company?

A. There is quite a little said about starch, and I don't agree with the statement made here, that there is no difference between corn starch and any other starch.

Q. Well, that was an authoritative statement put out by the parent company in 1898?

A. I don't know anything about it.

Objected to as immaterial.

Court: The answer may stand.

Exception by defendant.

Q. Read the statement as to starch.

Mr. FAIRCHILD: I object to the reading of this into the record as incompetent and immaterial. It doesn't show, as I said before, that it binds any defendant in this record or has any bearing in the case. Objection sustained.

Q. Now, doctor, I wish you would just take and glance at that and turn the pages over and see what names purport there to be the officials of this company and who the petition was signed by, 608 and the statements and letters that I think you will find there.

A. Why, first comes a copy of an address before the Ways and Means Committee, "Glucose Sugar Refining Company" without any signature of any individual. Then comes a statement, "Copy of Petition Signed by One hundred thousand Prominent Individuals and Firms to the Committee on Ways and Means, Hon. Nelson Dingley, Chairman, Washington, D. C." It is signed by Mr. P. D. Armour of Chicago.

Q. Yes, and others.

A. And others; some of them I know personally, some of them I don't know. Then comes a Copy of Affidavits by Experienced Men in the Glucose Industry signed by C. H. Matthiessen.

Q. Who was C. H. Matthiessen?

A. He was the President of the Glucose Sugar Refining Company.

Q. And was at that time?

A. I don't know.

Q. When you were employed?

A. Then he was.

Q. I say he was at the time you were employed, wasn't he?

A. Yes sir.

Q. See if it isn't signed as president?

A. Yes.

Q. And he is the gentleman who was president when you were employed by the company?

A. Yes sir.

Q. See if there are not other officers there.

A. Affidavit of F. O. Matthiessen.

Q. Who was he?

A. I understand that he was the uncle of Mr. C. H. Matthiessen.

Q. Was he connected with the company?

A. I don't think so, at least not actively. I never knew the gentleman. Then it says: "This affidavit has been attested to by the following gentlemen, who have had a great number of years 609 of practical experience——"

Q. You needn't read that.

Mr. FAIRCHILD: Is there a signature there?

A. No sir.

Mr. FAIRCHILD: What you find there is printed?

A. Yes.

Q. Well, do you say Matthiessen's signature isn't there?

A. I say it is printed.

Q. I don't claim that they are original signatures, but copies of them. Turn on, if you will, doctor, and see what the rest of it is.

A. Affidavits attested to by employes in glucose refineries. Then there are the names of a number of men. Statement by Dr. Arno Behr. Statement by John L. Fuelling, Chemist.

Q. Different Statements there as to this product?

A. Well, that I don't know. Statement of Henry C. Humphrey, Chemist.

Q. Do you know who he is?

A. I didn't know him at that time.

Q. He wasn't connected with the company?

A. No. And there is a statement of Dr. Edward Gudeman, Chemist. Statement or affidavit by August Wedderburn. Then follows copies of letters on the subject of Flourine by Dr. J. B. Murphy. Letter by W. J. Butler, M. D. Letters from Magnus Swenson. Letter from Dr. J. M. Dodson. Letter from W. E. Davenport. Report on Grape Sugar by the National Academy of Sciences. Copy of report from Dr. Cyrus Edson, commissioner of health of the state of New York, to Thomas F. Gilroy, Mayor of New York City. Letters from professors and doctors Barker, Gibbs, Remsen, Cyrus Edson reaffirming their reports to the National Academy of Sciences. What is Glucose or Grape Sugar by Peter T. Austin, Ph. D.

Q. You are quite familiar with the argument or brief, or
610 whatever you may call it, that Dr. Wiley filed in this hearing at Washington?

A. I read it once. I am familiar with it to that extent.

Q. It takes the opposite view of what you take?

Objected to.

Q. Now, do you know, do you not, that Dr. Wiley calls particular attention to this pamphlet called Statistics of the Glucose Industry, quotes from it, and in other ways seeks to show that at this time there was no claim made that there was such an article put out as corn syrup.

Mr. FAIRCHILD: I object to that, as incompetent, attempting to get into the record Mr. Wiley's brief by questioning this witness.

Mr. OLIN: No, not at all. My object was to show that this witness must have been familiar with this document, he had interest enough in this matter after having at least his attention called in that way by Dr. Wiley to have, it seems to me, remembered it and know something about it.

Objection sustained.

Q. Well, do you recall that Dr. Wiley called special attention to this document?

A. I hardly think that I recall that he called special attention to that, but I know that he mentioned it.

Q. Are you familiar with that part of his argument which is based on this pamphlet?

A. I wish to state that I am not familiar at all with Dr. Wiley's arguments. I have never read them carefully enough. I stated

that I read it—I wish to correct that now and state that I glanced over it, to that extent only have I read his brief; I have not studied it in any degree.

Q. Well, on looking this pamphlet through, does it not refresh your recollection, doctor, as to what it contains and the position taken by the Glucose Refining Company as to this article at that time?

A. As I have stated before, even now, although you have handed it to me, I don't know what the object was in preparing this statement. I do remember from the contents that the question of purity or wholesomeness of glucose plays a role in there.

Q. Do you claim at this date, 1898, any of the concerns engaged in manufacturing glucose were putting out any of their products under the name of corn syrup?

A. Oh, I am sure of that, that the statement has been made to me, come to me in the regular line of business.

Q. That these concerns that were manufacturing glucose, some of these concerns at least, were manufacturing corn syrup and selling it as such?

A. I think I heard that within three months from the date I entered the business.

Q. You have no personal knowledge about it?

A. That they did it?

Q. Yes.

A. I wouldn't like to state it under oath, because I may have seen the packages and I may not be sure about the date.

Mr. OLIN: We now renew our question and offer the statement as page 1 of this pamphlet on this question of the nature of corn starch, the statement put out at that time by this parent company.

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial. It can't bind the defendant in this suit and there is no showing that it emanated from the company that it purports to, and even if it had emanated from that company it wouldn't be material in the case, nor would it bind the succeeding company in a litigation like this.

Objection sustained.

612 Q. This Glucose Sugar Refining Company was located at that time at Chicago, Illinois?

A. Yes, they had offices in Chicago.

Q. And this Mr. Matthiessen, whose name you find here purporting to be president, was president of it?

A. At the time I entered the business, yes. The annual election, as I remember it took place August 7th, or the first Tuesday in August, I believe, so he may have been president only since the first Tuesday in August so far as I know.

(Question renewed.)

Same objection.

Objection sustained.

Q. What was Thomas Gaunt, was he general superintendent of the Glucose Sugar Refining Company at that time?

A. That's in April.

Q. The 21st day of March, 1908?

A. He may have been, I have no personal knowledge. Gaunt was not with the company when I entered. I succeeded to his position later on.

Q. Was Mr. S. T. Butler president and secretary of the Glucose Sugar Refining Company?

A. I don't think he was at the time I entered the business. I am sure he was not.

Q. Wasn't he connected with the company?

A. He was.

Q. Well, now, just glance at that and see if it refreshes your recollection?

A. Yes, I do remember the name.

Q. No, but read what is stated there. You needn't read it out loud.

Q. He has been connected with the company thirteen
613 years. I recognize every one of these names.

Q. It states his official connection?

A. At that time. But at the time I knew him he wasn't secretary and treasurer of the company.

Q. Do you know Mr. B. F. Rhodehamel?

A. Yes.

Q. Was he connected with the company?

A. I think he was connected with the company when I entered the business, in a sales capacity.

Q. And continued, didn't he?

A. No sir.

Q. Do you know Mr. Lee S. Harrison, Superintendent?

A. I did know him. I am sorry to say he died.

Q. He was connected with the company, wasn't he?

A. Yes sir.

Q. Superintendent, wasn't he, of the Glucose Sugar Refining Company of Davenport?

A. Yes sir.

Q. And had been connected with the company some fourteen years?

A. I don't know.

Q. A long time, hadn't he?

A. He had been in the business a long time, connected with a good many companies.

Q. Just glance at page 17?

A. Well, that bears that out.

Q. It states, doesn't it, the places where he had been superintendent?

A. It states that he had been connected with only one firm, the American Glucose Company, different branches of the American Glucose Company and the Peoria.

Q. And have you any doubt, after looking at that, that that
614 was put out by the Glucose Sugar Refining Company?

Objected to.

Objection sustained.

Q. Don't you know that it was?

A. I don't know anything about the history of the pamphlet, nothing whatsoever.

Q. Don't you know that it was put out about that time?

A. I don't know anything about the issuance of this pamphlet, what led to it, by whose directions, or who was connected with it.

Q. Wasn't it produced at Washington at the hearing there?

A. I don't know. It may have been quoted from, I don't know. I have no recollection of it whatever. It was not mentioned in my own brief so far as I can recollect.

Mr. OLIN: Well, I don't think I can make any more proofs than that of it. I didn't suppose of course that it would be questioned. I thought it might be objected to on some other grounds, but I didn't suppose it would be on that ground.

Q. Now, Dr. Wagner, I think you said that you were present at the hearing at Washington that began on December 5, 1907. Could you state how long that hearing continued?

A. Part of the day, as I remember it.

Q. That was before, I suppose, the secretary of agriculture?

A. Yes sir.

Q. The other secretaries, Cortelyou and Strauss, were not there?

A. No sir.

Q. Took no part in it?

A. No sir.

Q. As far as you know they never took any part in it, did they, actively?

Objected to as not cross examination.

(Question withdrawn.)

615 Q. Now, soon after that matter was submitted, did your Company, the Corn Products Refining Company, send out a circular letter such as I show you, marked for identification 212?

A. I have no knowledge of it.

Q. You have no knowledge of it?

A. No sir.

Q. Did you yourself send out any such letter as that?

A. I don't know. Not to my knowledge.

Q. Well, I will put it in another form. About that time did you, acting for the company, secure, or were you instrumental in securing resolutions to be adopted by various boards of trade and other bodies for the purpose of having that sent either to the members of congress to be laid before the secretary of agriculture, or directly to the secretary of agriculture, bearing on this question that was then pending before him?

A. I submitted the matter to a number of boards of trade, asked them if they were in harmony with our contention to take an active

part in trying to convince the authorities at Washington that we were in the right.

Q. Didn't you also, especially in Iowa, get parties to have the senators in that state, Dolliver and Allison, and other officials, members of congress, write letters favoring your contention?

Objected to as not cross-examination.

Objection overruled.

Exception by defendant.

Q. Did I address the gentleman you just mentioned?

Q. Were you instrumental in securing letters or opinions or communications—

A. Well, I have answered that I was, yes.

Q. And you carried on, did you not, a very vigorous campaign there for quite a while after the hearing at Washington and before the decision was announced?

616 A. Well, I don't know whether you would call it vigorous. It was practically I alone that did it.

Q. I wish you would get a copy, if you will, Dr. Wagner, of the so-called brief of Dr. Wiley. I wish to call your attention to certain things that appear in that. There is a heading, is there not, in that brief entitled "Opinions of Eminent Men, not experts, of Boards of Trade and of Other Bodies."

A. What page is that?

Q. It is my paging, it may not correspond with yours, 151, but that is the heading?

A. Yes sir.

Q. On that page, just to call your attention to it, do you remember of securing a brief from William M. Calder, member of Congress?

A. I do not.

Q. That was sent to the White House and then forwarded from that source to the secretary?

A. I do not.

Q. Don't remember of securing that?

A. No sir. In fact, I did not secure it.

Q. Was there a brief prepared by Mr. H. N. McKinney, who appeared here as a witness, on the subject?

A. I have no knowledge of that.

Q. And submitted. Do you have knowledge of the report from the Davenport Commercial Club under date of December 6, 1907, referred to the bottom of the page there. Did you secure that?

Objected to as incompetent, and immaterial and not cross-examination.

Objection sustained as not cross-examination.

Mr. OLIN: I will then make Dr. Wagner our own witness.

Q. Now, doctor, do you remember having anything to do with securing the report from the Davenport Commercial Club?

617 Objected to as immaterial.

Objection sustained.

Q. Do you know, doctor, about the weight of a gallon of maple syrup?

A. I do not.

Q. Or sorghum syrup or cane syrup?

A. That would largely depend upon the gravity of the syrup.

Q. No, but as it is usually sold on the market.

A. I have seen all gravities.

Q. Isn't it about eleven pounds to the gallon?

A. Well, Glucose is about that weight, yes.

Q. Well, very well, I should have put it that way perhaps.

A. I think they are all about the same any way.

Q. Can you turn, doctor, to the heading in the so-called Wiley brief entitled "The Michigan Supreme Court".

A. Yes, I have that.

Q. Turn to the top of page 92, it is the second page of that decision. I will ask you first if you testified as a witness at that hearing?

A. In Michigan?

Q. No, at Washington.

A. Yes, as a witness?

Q. Yes.

A. Which hearing is that, December 5th?

Q. At Washington.

A. You know there were two hearings. There was one on September 28th, which was the official hearing before the board of food and drug inspection.

Q. I think this was on December 5th?

A. It was more of an informal character. I made my statement there yes.

Q. Well, did you make a statement there as follows: "Do you consider the term corn syrup a satisfactory name for glucose plus a certain percentage of refiners' syrup"? And did you answer: "I do not consider it a satisfactory term for that as much as I would for glucose alone."

A. Of course that is not correctly given. I may have said, and I believe I did say, "I do not consider it as satisfactory a term for that as I would for glucose alone."

Q. Well, wasn't this taken down by a competent stenographer?

A. Well, there are a good many errors I have seen in the short time I have looked it over.

Q. Did Mr. Dunlop put to you the further question: "But you would not consider 'corn syrup' a satisfactory term for glucose plus a percentage of refiners' syrup"? And did you answer "No."

A. I made that answer and that was given in view of the recent action of food standards committees and their position on the matter, as well as legislation.

Q. That was your answer at that time?

A. It was.

Q. That you didn't consider "corn syrup" as a satisfactory term for glucose plus a percentage of refiners' syrup?

A. I didn't say I didn't consider it—I said "not as satisfactory."

Q. Does the record show any such modification as that?

A. Oh, I think it states what I said now, I could quote verbatim; "I do not consider it a satisfactory term for that as much as I would for glucose alone."

Q. Now, that is one answer, now, my other was the question put you by Mr. Dunlop: "But you would not consider "corn syrup" a satisfactory term for glucose plus a percentage of refiners' syrup" and didn't you answer "No."

A. I am decidedly under the impression that I was asked: "But would you not consider "corn syrup" as satisfactory a term for glucose"?

619 Q. Well, the record as quoted there by Dr. Wiley is just as I read, isn't it?

A. It's just as you read it, yes. There is no great difference.

Q. Well, you don't wish to say that you didn't state it just as it is stated there on that page.

A. I am stating that I am inclined to believe that the word "as" was there where the word "a" is now. I don't believe it makes much difference in the whole. I wish to make a statement, if I may, your honor, in this connection. I have never been given an opportunity to see any copy of that, or the correction could have been made. It says, "Dr. Dunlop asks Dr. Wagner," page 39 of the hearing. The language employed here is not English that is credited to me.

Q. I am not saying that you had an opportunity to read it, but it was simply taken down by a stenographer and written out afterwards?

A. But it is not English.

Q. Well, I imagine perhaps a good many of my questions here in this trial wouldn't be good English.

Q. Do you know, doctor, what the fact is as to whether glucose, as a syrup in any form, is used to any great extent in Germany?

A. Germany is not a syrup consuming country.

Q. They substitute for the syrup largely honey, don't they?

A. I don't know. I think jams and other sweets are eaten mostly. I spent my boyhood in Germany, so I have a very good recollection. I am obliged to base my information upon a period that's about twenty years ago. I left Germany when I left college, about seventeen years ago.

Q. If they have table syrup it is of the cane syrup, something in that direction, isn't it?

A. I think it would be in the nature of refiners' syrup, refinery syrup.

620 Q. Well, I will pass that just for the present and come back to it in a moment. I refer now to Exhibit 130, the trade mark for the word "Karo." You are familiar with that?

A. I am.

Q. And had to do with the getting of it up, I believe?

A. No sir.

Q. That states, doesn't it, in the declaration: "A class of merchan-

dise to which this trade mark is appropriated is groceries, and a particular description of things comprised in said class upon which the said trade mark is used is syrup."

A. That's approximately the language, as I remember it.

Q. You understand, do you not, that it is nowhere connected with the word "corn"?

A. No, not in the trade mark specification. It was not necessary.

Q. And in the declaration there appears this, that "The trade mark is used by said corporation in commerce between the United States and foreign nations or Indian tribes, and particularly with Germany." (Shown witness.)

A. I assume that that is true.

Q. Now, as a matter of fact, was your company at that time or prior to that time doing any export business whatever with Germany in any kind of a syrup?

Objected to as improper cross-examination and as immaterial.
Objection sustained.

Mr. OLIN: Then I will make him my own witness on this and I will change the form of the question.

Q. Can you tell us what the fact is as to the exporting at this time or any time prior thereto by your company of syrup to Germany?

A. I have no knowledge of our exports to Germany. I know that we are doing a large export business with that country, but it is not within my province to keep in touch with it so as to
621 know the details of our business.

Q. Well, state what the fact is as to whether that export business is confined to glucose?

A. Not at all, sir.

Q. Well, is largely glucose?

A. Very little glucose, in fact hardly any glucose.

Q. Well, is it the sugar, starch-sugar?

A. Starch sugar is sold some.

Q. Do you wish to state, or is it the fact that the export business you do or were doing at that time with Germany consisted in any respect of these mixed syrups?

A. I know that we have always been exporting mixed syrup.

Q. To Germany?

A. To European countries—

Q. No, Germany?

A. In general, I have no detailed knowledge.

Q. Would your Mr. Smith know?

A. I don't know, this was before his time. But the statement has been sworn to by an officer of the country, so I take it it is true.

Mr. OLIN: I move that that last be stricken out

Court: From "but the statement has been sworn to" may be stricken out.

Exception by defendants.

Q. Among the various price-lists that were shown you this morning there was one of the A. MacDonald Company, page 25, which gives among other descriptions of corn syrup, 2 lb. tins Crown and

Bee Hive Syrup. Was that a syrup that your company was putting out?

A. No sir. It is plainly not our syrup, because it is not called corn syrup. It is Crown and Bee Hive Syrup. It must be entirely distinct from any of our syrups.

Q. You never put out a Bee Hive Syrup?

622 A. Not to my knowledge, no sir.

Q. I notice in a number of these invoices or price-lists that were introduced this morning the article is referred to in the form of barrels, under the term corn syrup.

A. Yes sir.

Q. Now, do you know whether prior to the decision of the secretary that that was billed out or branded in barrels as "corn syrup" or "glucose"?

A. You the speaking of the unmixed article I presume?

Q. Well, take the unmixed article first.

A. I would say up to that time it was shipped out generally as "glucose," it being the unmixed article, although we have sent out before that the article as "corn syrup."

Q. But generally, as you say, it was sent out as glucose?

A. Yes, to the trade, and the trade only, meaning manufacturers when I employ the name trade.

Q. And where it appears here in the form of barrels under the other name, it is the mixed article—where it appears in barrels under the name of corn syrup?

A. I would like to see that invoice.

Q. Well, these price-lists.

A. Price-lists you say?

Q. Where it appears I say in these price-lists under the name of corn syrup in barrels it is the mixed article?

A. If it appears under the name of "Syrups," yes.

Q. Now, I think all of those price-lists were lists of syrups, were they not?

A. Well, they speak for themselves. They show it in most instances.

Q. You introduced a statement from two issues of the American Grocer, which I think you said was the leading paper of that class in the United States?

623 A. I made that statement.

Q. And that is the fact, is it?

A. So far as I know, yes.

Q. Well, that's your judgment.

A. It is my understanding.

Q. Under the date of August 5, 1908, that paper at page 36, starting out in that first column gives "molasses," doesn't it, and then "sugar syrup" and then "glucose"?

A. That is correct.

Q. And under that are "quotations for carload lots"?

A. Yes sir.

Q. And then for certain grades and mixtures?

A. And mixed syrups.

Q. All under the general head of "Glucose."

A. Of "Glucose."

Q. The next issue of that paper changed that, it seems, didn't it, and had a separate heading of "Corn Syrup"?

A. Yes sir.

Q. Then under that "quotations for earload lots."

A. The balance is I believe about the same as the other.

Q. No, let us see. Notwithstanding the term corn syrup put in on the top there, they do, do they not, put over the different grades here of the article the word "Glucose"?

A. Yes, this being a trade paper.

Q. Now, do you know how it came that in the next issue of that paper that addition was made of "Corn Syrup"?

— No sir.

Q. Of all the papers that you introduced here that is the only one, isn't it, which indicates that the article they are really advertising for sale is glucose?

A. There is a marked difference in this paper and the price-lists quoted. This is a trade paper, giving the quotations on 624 articles of commerce known to the trade. The others are articles known to the consumer and intended for the consumer. There is a difference between glucose in bulk and corn syrup in cans.

Q. Do you say that all these other lists of wholesalers, etc., were to inform the consumer?

A. No, the product that they quote is intended for the consumer. The other paper is not a price-list, the American Grocer.

Q. But the product they quote is intended to be sold to the retailer?

A. Yes, to the retailer and through him to the consumer.

Q. And they indicate merely to the retailer the name of the article?

A. They indicate to the retailer the name under which he sells the product to the consumer.

Q. Do they?

A. They do.

Q. Do you wish to say, doctor, that these price-lists as given indicate the brand that is upon the article in all of the cases as it is sold by the retailer to the consumer?

A. It is given largely in an abbreviated form.

Q. Or is it merely to indicate the brand as sold by the wholesaler to the retailer?

A. Every retailer knows that when the wholesaler quotes him Karo that that means only one product, Karo Corn Syrup, and nothing else.

Q. Now, let us keep away from Karo just for the present and take these other brands, some of them. I think that some of these price lists speak of it as Crystal Drips—do you remember?

A. I don't remember that. I hardly think that would apply to a corn syrup.

Q. Well, they were given under the general name or heading, as I remember, of—

A. Syrup.

625 Q. Corn syrup?

A. I don't recollect having seen it.

Q. Here is one that I remember at page 999, we have, have we not, "Syrups" and then under that Diamond Drips?

A. It also says "Best corn goods".

Q. Yes, I am coming to that. Then after Diamond Drips it puts in parenthesis, doesn't it, "Best corn goods".

A. Yes sir.

Q. Now, do you know when that article went out to the retailer whether it was branded merely "Diamond Drips" and there was not on it at all anything about "corn goods"?

A. That just bears out my statement that I made before. I have not seen the label, but I am quite sure that the label reads "Diamond Drips Corn Syrup". It is sufficient for the retailer to know Diamond Drips, he knows exactly what it is.

Q. Wasn't it the fact that those goods went out at that time before the statutes were passed in the different states under this taking name of Diamond Drips, leaving off entirely the term corn syrup?

A. That would be pure guess work if I want to make an answer to that.

Q. Well, you know, don't you, that there were a great many of these articles being put out and sold under the name of Diamond Drips or Fancy Drips or Crystal Drips or Pride Sorghum or Table Syrup?

A. Not by any of the companies I am connected with.

Q. Well, other companies?

A. I have no knowledge of their business.

Q. You didn't mean to say that that was the sale of any article or giving the price of an article that you put out?

A. I could not tell from this anything at all, but I cannot see how that should in any way mislead anybody.

626 Mr. OLIN: I ask that that be struck out.

Motion granted.

Exception by defendant.

Q. I simply want to ask you, doctor, whether you can say in this case that this is an advertisement of the prices of any goods that your company put out?

A. I cannot; therefore, I don't know.

Q. Now, isn't that true of a large proportion of these price-lists that were introduced this morning?

A. On the contrary I find our brands right along.

Q. Well, you found your brands, but you found these brands?

A. Why, of course, we have no monopoly of the business.

Q. And as to those others you have no knowledge, have you, as to how the article that was ultimately sold by the retailer to the consumer was branded?

A. Brands outside of ours?

Q. Yes.

A. I have no knowledge of those.

Q. Will you turn again to Dr. Wiley's brief at page 137 under the head "The Consumer will not Buy Glucose Under that Name."

A. I have it.

Q. You heard, did you, Dr. Chandler's testimony there at Washington at that hearing?

A. Yes sir.

Q. There is quoted, is there not, at the bottom of page 138, what purports to be from his testimony?

A. Yes sir.

Q. Just read that, if you will?

Objected to as incompetent, and no foundation laid for impeachment.

COURT: Is it for the purpose of impeachment?

MR. OLIN: Yes.

Objection sustained.

627 Q. Will you turn on a few pages, at page 141 of the same document there is in the middle of the page there a statement purporting to be from your testimony is there not?

A. Yes sir.

Q. I wish you would look it through and see whether you testified as there stated?

A. Well, I have no means of confirming that. My recollection is not fresh on the subject and this is not a certified copy. I don't even know whether this is a correct quotation of what actually took place at the hearing, nothing to show it.

Q. Would you state, doctor, the uses to which glucose is put besides being used in these mixtures for so-called syrup?

A. Why, it is used very largely in confectionery.

Q. And for what other uses?

A. Oh, for food products of all kinds: Jams, jellies, preserves, marmalades. Those are the principal channels, I think, for us to dispose of our product in.

Q. Now, I want to ask you a few questions, it may not be cross-examination, but I think we will agree and clear up a few things here. We have the terms molasses, refiners' syrup and syrups I believe used here, doctor?

A. Yes sir.

Q. And sugar?

A. Yes sir.

Q. Now, I want to get before the court clearly the distinction first between molasses generally speaking and syrup, leaving out for the present this article you deal in. Just understand that.

A. Leave out the glucose?

A. Yes, this corn syrup, or any of these mixtures, but take the other syrups and you just understand that. You are not bound by my designation at all. Now, a syrup contains, doesn't it,
628 whether made from cane or from maple or from sorghum, all of the sweetness that is, all the sugar is in it?

A. Why, I would have to know what kind of a syrup it is.

MR. FAIRCHILD: We have not put this witness on the stand as an

expert, your honor. It isn't fair to attempt to turn him into an expert on some questions that we haven't gone into at all.

Mr. OLIN: There is no question but what Dr. Wagner can answer all these questions. I just want this for the benefit of the court and myself in this case.

A. I am willing to state my personal opinion if counsel is satisfied.

Mr. FAIRCHILD: All right.

Q. All the sweetness in the syrup?

A. Well, I would have to know what kind of syrup you are talking about.

Q. Unmixed, made from the juice of the cane or the sorghum or the maple tree?

A. You said before "and molasses".

A. No, take that first. The sweetness is all in that, there has been no sugar taken out?

A. I don't know that product.

Q. What, maple syrup?

A. Maple syrup I know, but you are speaking of cane.

Q. There used to be cane syrup.

A. Not of that kind. I have been employed in the cane sugar business in Louisiana, have made sugar, I have made molasses myself personally, I have been a-sistant manager of one of the largest sugar plantations of Louisiana, the Elmwood, and I have never known the product that you speak of nor do I know any person in Louisiana who makes that product.

Q. As cane syrup?

A. That makes any such product.

Q. They do make sorghum, do they?

629 A. I think that is made more in other states than in Louisiana.

Q. Now, going back to a question I touched on before, and that is this designation you now make of green starch. Have you ever before, either at Washington or elsewhere in your writing, and by the way, you have written a number of articles on this subject, have you not, on the manufacture of glucose?

A. I made addresses on several occasions.

Q. Have you attempted to make this distinction of what you now make of green starch and the purified variety?

A. Oh, yes, I made it in Washington last year for instance—very extensively—went into it in detail.

Q. You delivered a paper, did you not, before the National Association of State Dairy and Food Departments at Minneapolis in 1903?

A. St. Paul—yes sir.

Q. Will you read from that article, doctor, the paragraph first marked there "A" and then the paragraph marked "B".

A. Yes sir I will be glad to do it. "The corn bought by us is of the No. 2 and No. 3 quality. To remove impurities, stones, dirt, dust, iron, etc. it passes through cleaning and separating machinery, and it is then delivered to the steeping tanks, huge vats, wherein

the corn is soaked in warm water. This treatment brings about a softening of the corn and facilitates the subsequent separation of the germ, which is effected after it has passed through a preliminary grinding whereby the corn is broken up and the germ set free. The balance of the material is now ground very finely in Buhr mill the coarser part, namely the bran, being separated by running the mass over silk sieves, while the starch liquor is concentrated and sent over slightly inclined planes, the starch tables, upon which by a process of settlement and washing the clean starch fills up in a solid layer; the lighter ingredients, gluten, fiber, etc. are carried along in a current of water, over the end of the starch tables." That

is A. "We have thus obtained, first, starch from the tables, 630 which represents the raw material of the corn starch and glucose manufacture."

Q. Just omit something there about byproducts, which is not material and read this paragraph over on the other side.

A. "Returning to starch, we saw some obtained in its raw state, which as I have said before, form the basis of gigantic industries; starch, glucose, grape sugar and corn syrups. Confining ourselves to starch for the present and following the process, we find that the raw starch is broken up, washed and syphoned repeatedly, run over refining sieves of fine silk, which remove the particles of fiber still adhering, and is finally delivered to the drying kilns, where the starch remains a certain length of time until its contents of water have been reduced to about ten per cent. Subsequently pulverized, we have corn starch in its highest purity, a purer product than which is not known".

Q. Now, the only difference, whether you use the starch for the purpose of making the commercial glucose, or whether you use it for the laundry purposes, or corn starch, as a starch, would be the question of impurities left in the green or raw starch, that would be the only difference, would it?

A. Why, the raw starch and the green starch is the same in both instances.

Q. And the difference between that and the laundry starch is that the first, the green or raw starch, isn't so pure?

A. Why of course, that is why we call it raw or green starch.

Q. That is the difference?

A. Why, no. Another very material difference, of course, I take it for granted that physically they are altogether different, the two products.

Q. How are they physically different?

A. Well, one is a milk as applied in a technical sense, and 631 the other is a dry product.

Q. Well, isn't it only that in the one the starch is suspended in water and in the other it isn't, it's dry?

A. That would seem to me to be a very material difference.

Q. Well, isn't that the only difference?

A. So far as applied to the starch it is proper, yes.

Q. And this suspended in the water isn't so pure, being in the raw condition as it is after it is purified and dried?

A. Why no, not at all. It can be just as pure whether it is in suspension or whether it is dry.

Q. I know, but as you make it for the purpose of this mixing glucose, the difference there is—

A. I would say if you saw the green starch first and then the finished starch you wouldn't think that those were the same products.

Q. I didn't ask you that. I am not expert on starch or glucose. I am asking you whether as a fact the only difference between the article in its liquid suspended shape there and the dried article isn't the fact that the first has certain impurities in it?

A. Certainly, that is the main difference. I stated so.

Q. And in your process of manufacturing this unmixed glucose your aim is ultimately to get those impurities out, isn't it?

A. Of course.

Q. And when you get them out the starch is just as pure as the starch that is made for commerce and sold as starch?

A. There is no starch then.

Q. Well, the product comes from the starch that is in suspension, doesn't it?

A. The glucose?

Q. The glucose. The glucose comes from the starch that was in the suspended product?

A. Yes sir.

632 Q. And not from the impurities?

A. Why no. The starch of the corn is the raw material for both.

Q. Certainly, the starch that comes from the corn by the action of acid you mean?

A. I said the raw starch is the same in both instances, glucose or starch.

Q. You spoke, doctor, of the great amount of care used in the manufacture of this glucose product?

A. I did, yes sir.

Q. You think it is very great?

A. I think there is an exceedingly great amount of care involved in the manufacture of glucose.

Q. You regard it necessary to exercise that care, don't you?

A. I am speaking of the manufacturing processes.

Q. Yes, I understand.

A. Yes sir, to get a high grade product, the same as in sugar works.

Q. Do you test muriatic acid for arsenic in each case before using the same?

A. Why, we do more than that.

Q. Well you do that don't you?

A. We do that under all circumstances. We don't permit—

Q. Now, you answered my question. Do you test every carboy as it comes from the acid factory to your establishment?

A. We do not receive it in carboys.

Q. How do you receive it?

A. In tank cars, sealed.

Q. And you test it in the car?

A. We test it after it comes out of the car and before it goes into the works.

Q. And you regard all this precaution as necessary?

A. No, I don't consider it necessary at all. Our experience
633 has shown that it is absolutely unnecessary.

Q. You do the unnecessary thing?

A. No, we are careful, that's all.

Q. But you are unnecessarily careful?

A. No sir. We simply want to be as careful as any other manufacturer would be in the manufacture of a food product.

Q. Well, you are not the only concern, as you said, that manufactures glucose?

A. Yes sir.

Q. There may be other firms that are not so careful as you are I suppose?

A. But we furnish the training school for the other institutions and those chemists have usually been with us for some time or another.

Q. They may not all be apt students?

A. It is only a matter of routine. It doesn't require a great amount of brains to make these tests.

Q. What would you say the purposes of a table syrup are? Well, to put it so that there will be no question about my meaning, is it for the sweetening and palatable part of the article that you have table syrup?

A. People I suppose expect something sweet.

Q. And something palatable?

A. And something palatable, yes.

Q. Having a flavor that will commend itself?

A. Not necessarily, not at all. Not at all.

Q. No flavoring?

A. No flavoring—not necessarily.

Q. Well, a taste then?

A. A sweet taste.

Q. It must be sweet. Well, do you mean to stop there?

634 A. Yes, I would stop there.

Q. Well, then would you have glycerin—that would do it?

A. Why no, no; there has got to be some sugar substance in it to make it sweet.

Q. Yes, you want sweetness and you want something that is palatable, pleasant to the taste, don't you?

A. Why, when I consider there are a great many straight sugar syrups sold, they have no flavor—

Q. I am not talking about these mixtures now.

A. I am not talking about these mixtures, I am talking about the straight sugar syrup as defined in these standards under number 5

Q. You know it has either sweetness or flavor, or both that you are after?

A. It has either sweetness or flavor, or both; that's right, yes sir.

Q. It is then for the purposes of a food product?

A. Oh yes of course it is.

Q. Well, if that was the main purpose then you might as well eat any amount of starch, either by itself or any starchy foods, for instance, potatoes, etc., containing an equal amount of solids that you find in the glucose?

A. No sir, raw starch is a very unwholesome article. The glucose is a predigested starch. That is what commends it to the use of the public at large and the farmer who buys the corn syrup from us, he wants it as a food, he doesn't want it as a sweet, the boys out in the field in the summer time in harvest, they use it, they spread it on their bread, and the bread furnishes the balance of the other nutrients that are necessary to go into the human economy to sustain life; they require energy and energy producing foods, and that is a carbohydrate food, it is the ideal product for every one that particularly requires energy and heat.

Q. Are you through now?

635

A. With that sentence, yes.

Q. I didn't know but what you wanted to add a little to it. Do you wish now to state that a healthy person can not digest starch that is cooked and prepared as a food?

A. Oh, I was talking about raw starch.

Q. You thought I was going to turn the party looses on raw starch?

A. Well, you said that. You said starch. Starch is raw starch.

Q. Well, I said in the form of bread or potatoes, but you didn't hear that.

A. Well, a potato is not cooked.

Q. Well, do we usually eat them raw?

A. Well, I don't know about what you are eating.

Q. Well, we don't up here.

A. That is very commendable, I should say, from my point of view.

Q. I hand you here, doctor, the special reports of the census office, Part I, 1905, and at page 138, and to call your attention to the subject "Glucose" and I call your attention to the first sentence there, and then I want to call your attention to what there is at the bottom. How does it define glucose, or state what it is there?

A. "Glucose: A thick syrup called glucose made from corn starch and the solid product called grape sugar obtained from the same source, are the most important products included in this classification."

Q. Now, at the bottom it states, doesn't it, the different items making up the product as manufactured, the different names and the value of each?

A. It says: "Each of the factories reported at the census of 1905 use corn as their principal material" and gives the various products and byproducts and the value of each, total \$24,506,932.

Q. Now, read those different items, the terms they use to designate the product.

A. Glucose, grape sugar—

Q. The amount opposite glucose?

A. \$12,207,197; grape sugar, \$2,506,707; corn starch, \$4,176,141; gluten feed, \$3,736,242; corn oil \$1,288,233; all other products \$652,412.

Q. Now, they don't name at all "corn syrup" do they?

A. No, this being a book of statistics they employed the trade designation. They don't say anything of mixed syrups in here. I don't know whether that is included. I doubt it.

Q. They speak, do they not, at the top that "The thick syrup called glucose, made from corn starch, and the solid product called grape sugar, obtained from the same source, are the most important products included in this classification."

A. But there is no indication that they meant anything but corn starch and grape sugar. And I think they omitted a very important branch of our industry, not to include our mixed syrups.

Q. You think that is an important branch?

A. The mixed syrup part of our industry.

Q. Yes, you think the census in making a statement of the value of the products of the glucose manufacturers of the country omitted part of them?

A. I even question the accuracy of those figures. Of course it is hard to tell that at a glance, but I question the accuracy of those figures.

Q. Do you know whether the special attorney of the Corn Products Company appeared and made an argument and filed a brief at Washington before this hearing?

A. We have no special counsel. I suppose you refer to Judge Calhoun, Chicago?

Q. Yes, Judge Calhoun, he is the gentleman I have in mind.

637 A. Yes, he is our regular counsel, has been for years.

Q. I said special.

A. We have no special attorney. He is our regular attorney. I don't know whether he filed a brief with the department, come to think of it. He may have done so.

Q. This you recognize, don't you, Exhibit 213, as one of the brands of the famous Karo syrup?

A. I should say that this is the label—yes, this is our label that was gotten up I should say in the year 1903 to cover the requirements of the Michigan state law, and it meets the requirements of the state law of Michigan in every respect.

Q. That is put right around the can I suppose?

A. Yes sir.

Redirect examination:

Q. Is there any difference between this label and the one you use in Wisconsin?

A. The one we are using now in Wisconsin at the present moment?

Q. Yes, with the exception of "with cane flavor."

A. Well, the style of print is different and the label reads "Corn Syrup with Cane Flavor." The same information however is contained in one of the side panels on the label.

Q. I show you Exhibit 214, doctor, and ask you if that is an exhibit expressing in a form the processes gone through with from green starch to glucose, from green starch to corn starch, and from green starch to laundry starch?

A. This is a sketch which shows the steps which you mentioned and the sketch which I made at your request regarding the manufacture of our products.

Mr. FAIRCHILD: We offer that in evidence.

Exhibit No. 214 is hereto attached and made a part hereof.

638 Recross-examination:

Q. If you should take, doctor, corn starch or laundry starch as shown at the bottom of the right-hand half of this Exhibit 214, and treat it, put it through the same stages or processes as are indicated on the left-hand side from green starch, you would end in glucose?

A. I don't think so.

Q. What would your product be?

A. I think we would get a jelly of the starch in the converter, which would render a further conversion absolutely impossible.

Q. Then all you would have to do would be to omit some of the processes, not take so many?

A. Oh, no, we would get stuck right in the first step.

Q. Then you can't make glucose any more out of laundry starch or corn starch, so-called?

A. I said if I—

Q. Can't you answer that question?

A. No, I can't answer it yes or no. I must qualify that.

Q. You can't answer it you say?

A. I can answer it I say.

Q. Can you answer it by yes or no, whether you can or can't?

A. It is one of those questions that you can't answer with yes or no. You said starch. You said that if I followed these steps as I indicated leading to laundry starch?

Q. I finally put the question whether or not you wished to say now that you couldn't make glucose out of either corn starch or laundry starch so-called.

A. There is no connection between this question of yours and the previous question.

Q. Please answer the questions as I put them. It isn't for you I think, doctor, to say whether there is a connection or not. I am putting that question now as to whether you wish to say you
639 can't (make) glucose out of either corn starch or laundry starch?

A. Laundry starch can be any starch, it need not be corn starch.

Q. I am talking about corn starch now.

A. As made by this process?

Q. No.

A. Then you will have to describe to me the process by which you make it, otherwise I can't answer the question.

Q. Do you mean to say that the corn starch, which is made just as pure as possible, as I understand the testimony, can't be taken today and through any process you know of be manufactured into glucose?

A. Certainly there would be a possibility of doing it, but it would be commercially absolutely impossible, on a commercial scale it would be ruinous.

Q. That would simply be because it would be too expensive?

A. Because it would be too expensive and because I think the apparatus in a glucose factory would not be sufficient.

Q. To grind it and purify it?

A. To handle it.

Q. It wouldn't be because the elements were not all there?

A. The elements are there, but not in the form in which they are desired as necessary to operate a large factory.

640 EMIL H. OTT, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Ott, where do you reside?

A. Milwaukee.

Q. What is your business?

A. Grocer.

Q. Wholesale or retail?

A. Both.

Q. How long have you been in that business in Milwaukee?

A. Thirty-one years.

Q. Are you with any particular firm, or doing business in your own interest?

A. I am vice-president and manager of the Steinmeyer Company.

Q. You may state whether or not you are carrying on a large business or not?

A. We do a large business.

Q. Do you know an article as corn syrup?

A. Yes, I do.

Q. How long have you known this article corn syrup?

A. Twenty-five years.

Q. Have you ever dealt in that article?

A. Since that time, always.

Q. Do your customers know the article by that name?

A. They do.

Q. Have you ever bought that article by the barrel or half-barrel or keg?

A. From the very start—all in barrels.

Q. Did you afterwards buy it in cans?

A. Ten years ago.

Q. Beginning ten years ago?

641 A. Beginning about ten years ago.

Q. By what name did you buy the article?

A. "Corn Syrup."

Q. Was it barrels or half-barrels or kegs in which you bought it, marked with any name or brand?

A. A private brand.

Q. What private brand did you use?

A. Amber and Sweet Clover.

Q. When you commenced to buy it in cans did you buy it with any particular label or did you have your own label?

A. We had the factory label.

Q. What label was that?

A. We had several labels.

Q. What were they, do you remember?

A. Old Glory and Kairomel from your factory, those two brands, Old Glory and Kairomel.

Q. From the Corn Products Company?

A. Yes sir.

Q. Did you buy from any other factory?

A. Occasionally.

Q. Well, how long do you remember it was that you had any under the brand of Old Glory from any of these factories?

A. Eight or ten years—ten years.

Q. Was those in cans?

A. Yes sir.

Q. I will show you Exhibit 131 and ask you if you have ever seen that brand before, Kairomel brand?

A. I have.

Q. Do you remember whether that is the brand you used on the cans you bought and sold?

A. It is.

Q. You may state whether these percentages were on at the time you sold it or not?

642

A. They were.

Q. Can you tell us about how long ago you begun to sell under this brand Exhibit 131?

A. Well, five years I believe, I wouldn't be certain. I could look it up.

Q. Well, did you ever sell under the Karo brand?

A. We did.

Q. I will show you Exhibit 143 and ask you if that is the brand, Karo brand, under which you sold?

A. I only remember the name slightly. It was only one shipment we had.

Q. Have you continued for any particular length of time in the sale of this Kairomel brand?

A. Up to the present date.

Q. I will ask you if this Kairomel is a special brand with you?

A. It was for us in Milwaukee, yes, exclusively.

Q. I will ask you whether corn syrup is a syrup called for by your customers under that name?

A. It was.

Q. I mean under the name of corn syrup?

A. Corn syrup.

Q. You may state how far back your customers began to call for it as corn syrup?

A. From the time it was introduced.

Q. You may state whether that article is a popular article with the trade as a syrup?

A. It seems to, it has been growing right along.

Q. How does it compare in popularity with cane syrup?

A. It seems the people prefer it, on account of being smoother.

Mr. OLIN: Prefer it to what?

643 A. To sugar syrup, on account of it being smooth to the taste.

Q. You may state whether any considerable number of your customers purchased this Kairomel brand of corn syrup in your place, I mean your retail customers?

A. How do you mean—what should I state?

Q. Whether you had a considerable number of customers for that?

A. Yes.

Q. Has that been so during the whole time you have been in business?

A. It has.

Objected to as leading and suggestive.

Court: Objection sustained. Strike out answer.

Exception by defendant.

Q. Have you bought this by the carload?

A. We have.

Q. About how many carloads a year do you use of corn syrup?

A. About ten or twelve. It varies.

Cross-examination by Mr. OLIN:

Q. Mr. Ott, you have been dealing in syrups you say for about twenty-five years?

A. In corn syrup, yes sir.

Q. Exclusively?

A. Oh, no.

Q. How old are you?

A. Forty-eight.

Q. So you commenced when you were thirteen?

A. Sixteen I left Madison, been with the business since.

Q. Been in it ever since?

A. Yes sir.

Q. A great many different syrups are on the market in this state, table syrups?

A. Yes.

644 Q. That was especially true up to the time of the passage of the law of 1905?

A. Yes sir.

Q. You remember that law, don't you?

A. I do.

Q. You remember that led, did it not, to some meeting or discus-

sion by the members of the Wholesale Grocers' Association in Milwaukee?

A. I do.

Q. Your firm, or some members of your firm, were officers of that association at that time?

A. They were not.

Q. You are members of the association?

A. I am not.

Q. I mean your company?

A. The company yes sir.

Q. And the officers of that association took up that subject, did they not, as you understood, with the commissioner, the dairy and food commissioner of the state?

A. The wholesale grocers?

Q. Yes.

A. Yes sir.

Q. You remember, don't you, that that law necessitated some change in your method of labeling goods?

A. It did.

Q. That you hadn't complied with before—you hadn't pursued before?

A. Before 1905?

Q. Yes. It required certain changes.

A. I believe we had a change before.

Q. Well, do you remember in what respect you had the change before the law of 1905?

A. In branding?

Q. Yes, in labeling?

645 A. In labeling—it was sold then as table compound.

Q. Under various names?

A. Table syrup compound.

Q. Honey Drips?

A. Sweet Clover.

Q. Honey Drips?

A. Amber Drips.

Q. That was one of your brands?

A. That was the dark one.

Q. And Table Syrup, Rock Candy Syrup?

A. No sir.

Q. Or Pride Sorghum?

A. We had sorghum, yes sir.

Q. You remember that name, don't you?

A. Called sorghum.

Q. Pride Sorghum?

A. Tennessee Plantation Sorghum.

Q. Do you know whether it contained glucose?

A. It was pure.

Q. How do you know?

A. We asked who we bought it from.

Q. It was sold as pure?

A. Well, we are buying it from the same firm today.

Q. Well, you found, didn't you, after this law was passed, as to a food many of those syrups you had to put in the percentage of glucose or compound?

A. Not the highest grade syrups or sorghums.

Q. But as to the lower grades you did?

A. Not with the Loaf Sugar Syrup.

Q. Well, with various grades you did that you were dealing with?

A. Very few.

Q. Now, those names you have spoken of are not corn syrup names?

646 A. The Amber.

Q. The Amber?

A. It was a corn syrup.

Q. Well, do you mean to say that the words "corn syrup" were on the label?

A. Not on the barrel, no.

Q. Nor on the can?

A. We never sold the Amber Syrup in cans, only bulk.

Q. You never sold any of these syrups in cans under the name of corn syrup prior to the law of 1905, did you?

A. Well, we had the Kairomel—that is, ten—eleven years ago, we sold that in cans under "corn syrup."

Q. Well, you didn't sell it under the name of corn syrup?

A. I believe it had "corn syrup" on the label—or five years or six years.

Q. About five years later?

A. Yes, about five or six years. I would like to contradict that, because before this brand we had other brands.

Q. Isn't it a fact that up to within five or six years ago you never sold to the consumer any of these brands under the name of corn syrup?

A. They were sold as corn syrup before. Well, I believe, if I am not mistaken, we have been selling syrups in cans.

Q. Aren't you mistaken about that?

A. I don't think so.

Q. Isn't it the fact that you sold them under these other names?

A. Amber and Sweet Clover, never; they always were sold only in bulk.

Q. Well, that wasn't sold under the name of corn syrup, it was sold under the name of Amber?

A. Amber Syrup or Sweet Clover Syrup.

647 Q. Made up mostly of glucose?

A. Well, whatever it was made of—you heard the doctors say here.

Q. You didn't know what it was made out of?

A. We knew it was made out of corn from the time it was introduced.

Q. You heard that it was made out of corn? That is, you knew it was made out of glucose?

A. We knew that glucose had something to do with it.

Q. And you sold it as Sweet Clover Drips?

A. Sweet Clover Syrup.

Q. That indicates the idea of the dripping down of the syrup from the crystallization of the sugar?

A. Sweet Clover Syrup I believe it was sold by.

Q. Well, you also sold some Drips?

A. Amber Drips—Amber Syrup and Sweet Clover.

Q. Well, you sold some Drips, Honey Drips?

A. We might have Diamond Drips also, but that was a sugar syrup. Diamond Drips was sugar syrup.

Q. Mostly made up of glucose?

A. No sir, it was a sugar syrup from a sugar refinery.

Q. Did you analyze it?

A. I bought it from a sugar refinery.

Q. Do you know how you had to brand that article after this law was passed?

A. Well, we was very careful to see that we got what we bought.

Q. Well, but don't you know that you had it analyzed and you had to change your brand and put on the percentage?

A. Never had that analyzed, no, sugar syrup.

Q. The percentage of cane and sorghum, or whatever it was?

A. No sir.

Q. Did you keep selling that in 1905, Diamond Drips?

A. Sugar syrup?

Q. Are you selling it now?

648 A. I believe we are.

Q. Under the name Diamond Drips?

A. Sugar Syrup. We have it in cans also, Sugar Syrup, absolutely pure.

Q. Absolutely pure?

A. Yes, absolutely pure, in cans, sugar syrup.

Q. Then there is something made absolutely pure from sorghum?

A. Absolutely pure.

Q. From sugar or cane?

A. No.

Q. Now what brands were those of corn syrup that you sold eight or ten years ago?

A. That's hard for me to recollect; some times buy from various factories.

Q. Well, now, can you name any factory that put out any article labeled and sold to the consumer as corn syrup as long as ten years ago?

A. I would not like to make that statement, because I would have to look it up and see when we purchased it.

Q. The fact of it is, you may be mistaken about that time?

A. It does seem to me to be that time?

Q. But you may be mistaken about it?

A. I don't think I am.

Q. But you can't name any concern now that put out any such article?

A. The Corn Products Company I believe.

Q. Now, if any company put it out, it was the Corn Products Company, wasn't it, according to your best recollection?

A. There were other firms too—

Q. No, the point I am directing your attention to is whether any firm put out an article labeled that way as long as ten years ago so that it went to the consumer branded as corn syrup?

A. To my knowledge, yes.

649 Q. Other than the Corn Products Company?

A. I believe so.

Q. Can you name any?

A. I can't now, no, without looking it up.

Q. Isn't it a fact that prior to this law of 1905 in Wisconsin all these mixtures were sold under these various names that you have been mentioning, and that the branding of them as corn syrup didn't come up until after that law was passed?

A. I wouldn't like to make a statement without being certain about that. It seems to me they were marked "corn syrup."

Q. But you may be mistaken about that?

A. I doubt it if I am mistaken. They were known in our business always as corn syrup and people asked for it.

Q. You don't mean to say that these articles were branded corn syrup twenty-five years ago, Mr. Ott?

A. No sir, ten years in the cans.

Q. Now, when you say that you have always dealt in this article as corn syrup for twenty-five years, what you meant was that you have dealt in an article that was made up from glucose that came from corn and some mixtures, but you don't mean that it was branded that way twenty-five years ago and sold to the consumer under that name "Corn Syrup," do you?

A. It didn't come marked that way in the barrels, no, it was marked under our private brand.

Q. It wasn't sold to the consumer that way?

A. It was.

Q. Twenty-five years ago?

A. Mr. Steinmeyer when he was alive—

Q. To the consumer?

Q. Yes sir, he was very conscientious in those things.

Q. There was no law requiring it then?

650 A. No sir. We never misrepresented anything in our establishment.

Q. Well, did you know it was made up of glucose?

A. I presume Mr. Steinmeyer did.

Q. You don't know, do you?

A. I do, because he posted up his salesmen.

Q. Why, didn't you say a moment ago that according to your recollection the first goods, as I understood you, that were sold under this name of corn syrup, these brands, was about ten years ago?

A. That is, the factory deemed it advisable, I presume, to put it in cans, because many things are put out in that way now, it saves a lot of trouble in handling the goods.

Q. Do you mean that any sales prior to that time by you was in the barrel?

A. In jugs and quart cans, jugs and barrels.

Q. I thought you said cans came in about ten years ago?

A. Yes sir.

Q. Now, prior to that it was in what form?

A. Large barrels, retailed.

Q. You don't know how that article was branded when it was dealt out to the consumer, do you?

A. It only had the brand of the manufacturer.

Q. And you don't know how it was branded by the retailer as he sold it to the consumer?

A. We sold it direct to the consumer from the factory.

Q. I thought you were wholesalers?

A. We buy direct from the factory. We are wholesalers and retailers both, about fifty per cent of each.

Q. Well, did you, down to ten years ago buy goods in barrels?

A. Prior to that time always.

Q. When you sold to the individual consumer, in what form did you sell it to him, when you took it from the barrel, in a can or—

A. It was drawn out of the barrel into a jug or can, whatever the receptacle might have been.

651 Q. And simply sold in that way?

A. As table syrup.

Q. As table syrup, yes. That is, later they got to putting it up in cans and you bought it in cans?

A. Yes sir.

Q. And you have no recollection of selling in cans any article branded as corn syrup as early as ten years ago except this Kairomel brand?

A. Yes sir.

Q. Now, wasn't that a brand, as you understood, that was gotten up originally by this Corn Products Company to do business in Michigan?

A. I did not know that.

Q. Did the Kairomel brand from the start, as you remember, have on it at the top "Trade Mark, Registered" with the word "Corn" written out here on a white ribbon encircling some corn, showing an ear with the leaf?

A. I can't recollect that, only the name.

Q. You don't know when that trade mark was taken out?

A. I couldn't tell you.

Mr. FAIRCHILD: I will offer in evidence from Volume 1 Dictionary of Applied Chemistry, by Thorpe, dated 1894, page 653, this sentence: "In this country the material chiefly employed in the manufacture of commercial dextrose are: sago, maize, rice-starch, finally corn starch, as well as granulated maize and starch being at times used. Potato starch is also used in Germany. In America green maize starch is the chief material, hence the term 'corn sugar'."

The new International Encyclopedia (1903) page 450, under the

head "Commercial Glucose." "The term glucose is applied to mix-
tures of a substance described above, with other carbohydrates,
652 the various mixed products being otherwise called starch-
syrup, corn syrup, starch-sugar, corn-sugar" etc.

The Universal Encyclopedia, under date 1900, on page 175: "Starch sugar appears in commerce in a great variety of grades under the following names: liquid varieties: glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose, maltose, maltose-syrup, maize-sugar; solid varieties are called grape sugar" etc.

I read from a certified copy of the pure food laws of the state of Iowa which went into effect July 4, 1907, also the note, being the rulings of the commission on various subjects, on page 18, under the heading "Sugars, Syrups and Honey", the following:

Mr. OLIN: We object to this and we want the date of it, that those rulings were put into effect. On the front is "Effective July 4, 1907". Is that the date that we are to understand the rulings went into effect?

Mr. FAIRCHILD: Why I presume so.

Court: What is the ground of your objection?

Mr. OLIN: Why, I don't think that is competent testimony here. I can't see how that could in any way control the situation here. It depends on what the law in Iowa is.

Court: Do you offer the law or simply the ruling?

Mr. FAIRCHILD: I will offer both of them.

Court: The court can then determine the value of the ruling. Received.

Mr. FAIRCHILD: "The name 'corn syrup' or 'glucose' but not the name 'grape sugar' should be used for the liquid product usually known as glucose".

(Marked Exhibit 215).

Mr. FAIRCHILD: I offer in evidence a certified copy of the Twenty-first Annual Report of the Ohio Dairy and Food Commis-
653 sioner to the governor of the state of Ohio for the year end-
ing November 15, 1906, so far as appears on page 24 and
part of 25 under the head of "Corn Syrup", and preceding "Corn
Syrup" appears the amended statute of that state of April 6, 1903.

Mr. OLIN: We object to that law that he refers to, it deals entirely with maple syrup, if I have read it correctly, the other is some dissertation by the commissioner on something entirely different, having nothing to do with the law.

Mr. FAIRCHILD: The object of introducing this, your honor, is not particularly to show the interpretation of the law, but to show, your honor, that corn syrup is a well recognized syrup the country over, and this is in the report, I agree with Mr. Olin, although it is head-
"Maple Syrup and Sugar Law of Ohio", I don't just catch now
where it refers to the sugar, it probably refers to maple sugar.

Court: It may be received.

Mr. FAIRCHILD: The heading is "Corn Syrup". "The various corn syrups have been sold under many different names, but labeled to contain varying percentage of cane sugar and glucose; for in-

stance 10 per cent cane and 90 per cent corn (glucose) syrups; 25 per cent cane and 75 per cent corn; 35 per cent cane and 65 per cent corn, etc. In these instances, the dealer as well as the customer supposed that the more cane sugar purported to be used in the manufacture of the syrup, the better the syrup, and it should be, and should be more expensive. Tests by the department showed that those syrups represented to contain the greater percentage of cane sugar in almost, if not quite, every instance, contained the least, and that none of them were true to formula. The actual percentages of cane were so small in many of them, that the products could be sold as corn syrup without any formula and the department has taken the position that they must be sold simply as corn syrups or
654 else the formula given must be a statement of facts. It is believed that the department's position will be complied with by manufacturers and dealers".

(Marked Exhibit 216).

Mr. FAIRCHILD: I offer certified copy of New Hampshire Sanitary Bulletin, published quarterly by the state board of health under date of October 1907, under the pure food and drug laws of the state of New Hampshire, with rules and regulations for the enforcement of the same as promulgated by the state board of health, and the particular part I refer to is Regulation 33, page 306. That Regulation is headed "Molasses Containing Glucose".

Mr. OLIN: We object to it as incompetent, irrelevant and immaterial.

COURT: It may be received.

Mr. FAIRCHILD: "Regulation 33. Molasses containing Glucose. A mixture of molasses with glucose or corn syrup is not molasses and dealers are notified (or warned) that the offering of such without due notice in response to calls for molasses is fraudulent. In addition to such verbal notice, it is suggested the dealers selling molasses glucose mixture further protect themselves by the posting in their places of business notice to the effect that molasses and glucose (or corn syrup) mixture is sold here."

(Marked Exhibit 217).

Mr. FAIRCHILD: I offer in evidence the food standards under the food and drug law of Louisiana, adopted April 25, 1908. The constitution of the state of Louisiana authorizes the board of health to establish standards which shall have the effect of law." This is on page 42 under the head of "Glucose Products".

Mr. OLIN: We object to that. "We don't see what force the action of a board down in Louisiana is going to have on the
655 state of Wisconsin.

Mr. FAIRCHILD: It has no force at all, except to show that corn syrup is a recognized name for this commodity everywhere.

Received in evidence.

Mr. FAIRCHILD: The second subdivision under that head "Glucose Products" is: "Glucose, mixing glucose, confectioners' glucose (Corn Syrup) is a thick, syrupy, colorless product, made by incompletely hydrolizing starch, or a starch containing substance, and decolorizing and evaporating the product. It varies in density from

forty-one to forty-five degrees Baumé at a temperature of 100 degrees Fahr".

(Marked Exhibit 218).

Mr. FAIRCHILD: The Sixth Annual Report of the state food commissioner of Illinois for 1905 at page 36; on page 35 is the heading "Sugars." "Glucose mixture is a syrup made from glucose and other sugars. Corn or glucose syrup is commercial preparations and glucose, or a solution thereof."

(Marked Exhibit 219).

Also the Seventh Annual Report of the state food commissioner of Illinois for 1906.

(Marked Exhibit 220).

Mr. OLIN: Who was commissioner in 1905?

Mr. FAIRCHILD: Alfred H. Jones. This is a note under the heading of "Fruits and Fruit Products" on page 33. The language is: "Preserves, jellies, jams and similar products containing glucose and added color must be labeled according to Labels 14 and cannot be sold under any other name than there given. 'Corn Sirup' may be substituted for the word glucose whenever the latter appears in this bulletin".

And the same commissioner, Alfred H. Jones, in 1907, Eighth Annual Report, has quite a statement on corn syrup. On page 98 under the head "Syrup (other than Maple and Molasses)". "These syrups are usually sold as 'table syrup'. The name 'table 656 syrup' is not a distinctive name (Sec. 9—First) and all such syrups should be clearly branded with the true name of the article, as corn and cane syrup, etc., thus showing that it is a mixture or compound, and showing its components".

(Marked Exhibit 221).

And on page 201 of the same volume is the same statement as read from the other report in a foot note: "'Corn Syrup' may be substituted for the word 'glucose' whenever the latter appears in the bulletin. See rules for labeling No. 26". And over on page 203, the standards, we find the following under the head of "Glucose Products". "Glucose, corn syrup, mixing glucose, confectioners' glucose, is a thick, syrupy, nearly colorless product made by incompletely hydrolyzing starch, or a starch containing substance and coloring and evaporating the product".

(Marked Exhibit 222.)

I offer from the Laws of Illinois, 1907, bill headed "State Food Commissioner. House Bill No. 844. Approved May 14, 1907". The general heading on page 548 is "Misbranded Defined". On page 549 is: "Third. In the case of mixtures of corn syrup (glucose) or corn sugar (dextrose) or corn sugar syrup, with cane or beet sugar (sucrose) or cane or beet sugar syrup, in food, if the maximum percentage of corn syrup (glucose) or corn sugar (dextrose) or corn sugar syrup, in such article of food be plainly stated on the label". That is, it will not be considered misbranded.

(Marked Exhibit 223).

Mr. FAIRCHILD: I offer in evidence the opinion of the attorney general to the president date- April 10, 1907, which bears partly on

this and partly on another question involved in the case. After the statement "Food Inspection Decision No. 65" there is a passage on pages 4 and 5 that I wish to read: "The primary purpose of the pure food law is to protect against fraud consumers of food or drugs; as an incidental or secondary purpose it seeks to prevent or at least discourage the use of deleterious substances for either purpose, but its first aim is to insure, so far as possible to purchasers of an article of food or of a drug it shall contain nothing different from what he wishes and intends to buy. According to the recognized canons of statutory construction, the language of its provisions must be interpreted with reference to and in harmony with its primary, general purpose; so that in determining the proper nomenclature for articles of food as defined in the act the intention of the law will be best observed by giving to such articles names readily understood and conveying definite and familiar ideas to the general public, although such names may be inaccurate in the view of a chemist or physicist or an expert in some particular industrial art, as in the distillation and refining of syrup. Moreover, the same name may be given by dealers or the general public to two or more substances differing very materially in their scientific characteristics, and this fact must be given due weight in passing upon questions of branding or labeling under the law".

(Marked Exhibit 224).

Mr. FAIRCHILD: I offer in evidence from the report of the Imperial German Board of Food Chemists, 1899, volume 2, 1897, page 95: "In Germany starch-sugar and starch-syrup occur in large quantities in commerce. The German production amounts per annum to seventy to ninety thousand double zenters for starch-sugar, and two hundred and fifty to two hundred and eighty thousand double zenters for starch-syrup. In Germany both are almost exclusively produced from potato-starch by boiling with acids, usually hydrochloric or sulphuric acid, by neutralization with chalk filtration over bone-black, and evaporating in vacuo from 42 to 44 Baumé, therefore often called in commerce potato-sugar and potato-syrup, rather rarely grape esugar".

658 (Recess until 7:45 P. M. January 2, 1909, at which time the trial was resumed).

J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, since you were on the stand have you had some correspondence with Dr. Ladd, of South Dakota, is it?

A. North Dakota.

Q. North Dakota.

A. I have received a letter from him since that time.

Q. Is this the letter bearing date December 30, 1908?

A. Yes sir.

Mr. OLIN: We offer in evidence the last paragraph. Objected to as entirely immaterial.

Objection overruled.

Exception by defendant.

Mr. FAIRCHILD: I think, Mr. Emery's letter ought to go in if that comes in.

A. I am willing to state just what I said. I didn't ask him for any such comment, I simply told him in a letter on another subject that we were going to trial on the glucose mixture case soon, that is all I told him. I didn't ask him for any opinion. It was a voluntary opinion.

Mr. OLIN: The part we ask to offer is: "I sincerely hope you will win your glucose mixture case, for this is a valuable precedent if we can once secure its establishment".

659 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Do you know the ages of the men making up the standards committee at the time they acted in fixing these standards in Circular No. 19?

A. Yes sir, I looked up their ages and experience.

Q. In what book?

A. In American Men of Science.

Q. That's where all the big men appear?

A. Why, some of them.

Q. Just state it.

A. Why, the average of the six men who comprise this committee collaborating with the secretary of agriculture in preparing standards for Circular No. 19 was at the time fifty-two years.

Q. Give their respective ages, if you have it there at that time?

A. Webber, sixty-one; Wiley, sixty-two; Frear, forty-six; Jenkins fifty-six; Scovell, fifty-one; Fischer, thirty-seven.

Q. And those same men and two or three other men make up the combined committee of the two associations today.

A. At the present time there are four more members.

Q. Name those other four.

A. Barnard of Indiana, Fullmer of Washington—

Q. Give their ages.

Q. Barnard is about thirty-five. He is not connected with any school or anything of that kind, and I don't find his name in the American Men of Science. Fullmer is forty-four. Wood is fifty-two. Wood is Director of the Maine Agricultural Experiment Station. Shepard, although he is professor at the South Dakota agricultural experiment station, is not mentioned either in American Men of Science; his age is about fifty-five.

660 Q. Will you state what the connection is, if any, between the agricultural chemists and the dairy and food commissioners of the different states and Dr. Wiley at Washington?

Mr. FAIRCHILD: Now, Mr. Olin, I am willing and I would rather have expunged from the record every word of testimony given by

Professor Chandler on the subject of the reason why he would not take the opinions of these men, these food chemists, because I didn't know what he was going to testify to and hadn't talked with him about it, and I shouldn't have asked that question, if I had known what he was going to testify to, and I don't think it is fair for Mr. Fischer or any one else to have any personal feeling about it.

Mr. OLIN: He hasn't any personal feeling about it at all, I am just about through, I prefer to let the record stand.

Q. You can answer that question briefly.

A. These various officials mentioned are not acting in their various stations under the authority of Dr. Wiley. They naturally, especially the chemists of the various agricultural experiment stations, cooperate with the chemists of the United States Agricultural Department, but that is all—just cooperation.

Q. On both sides?

A. Cooperation on both sides, yes sir.

Q. No authority either way?

A. No sir.

Q. Have you got a copy of Circular 19 with you?

A. I think I have.

Q. Turn to page 10, under the general head of "Syrups" and in subdivision 2 there is an expression there that I wish to have explained. It says "Sugar cane syrup is made by the evaporation of the juice of sugar cane". Now, it is this part: "or by the solution of sugar cane concrete". What is meant by that expression?

A. I can perhaps best describe that by giving a definition for "Concrete" in connection with "sugar concrete" as definition 661 4 under "Sugar and Sugar Products" of the standards in Circular No. 19.

Q. What page?

A. That is at the top of page 10. That reads "Massecuite, melada, mush sugar, and concrete are products made by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semi-solid consistence, and in which the sugar chiefly exists in a crystalline state." As an example, well known example, of what would be known of "concrete" I can give maple sugar produced by the evaporation of maple sap to such a consistency that the whole mass will become crystalline throughout, these crystals holding whatever non-crystallizable matter there is and the water.

Q. There was some criticism by Dr. Chandler on subdivision 5, the definition of "sugar syrup" on page 10. I wish you would just state briefly the reason or object for making that subdivision.

A. One reason was that "sugar syrup" is recognized in the various pharmacopeias as a simple solution of cane sugar, sucrose, in water. It would also cover a pure rock candy syrup, one made by dissolving rock candy in water, rock candy being the purest commercial form of sucrose, that is, if uncolored; it some times appears in the market colored of course, as we all know. What is ordinarily sold as Rock Candy Syrup, would not come up to that definition. It is the liquid that is left after the rock candy is crystallized out

of a solution of sugar, and therefore contains most of the impurities and most of the rock candy syrup that has been sold in years passed contained a very considerable amount of glucose.

Q. Dr. Chandler testified, in substance, that the quality as to a true syrup, like cane, maple and sorghum was directly proportionate to the amount of invert sugar that is produced in the manufacture of such a sugar. Now, what do you have to say about that, doctor?

A. I do not agree with that statement.

Q. Well, state the reasons.

A. Take as an example maple syrup, the best grades and
662 the finest grades, the finest flavored of maple syrups are those that contain the least invert sugar.

Q. That is an invert sugar is less valuable or of a lower order than cane sugar?

A. From the standpoint of nutrition it is not less valuable, but it is less valuable because it is less sweet.

Q. Now doctor, I would like to have you, to make things clear here in the record, be very brief, answer a few questions here with reference to what we have termed true syrups, molasses and refiners' syrup. Now, first I will ask you to state whether in syrups made from the juice of either the cane or the sorghum or the maple any of the sugar is removed or whether the syrup contains all the sugar.

Mr. FAIRCHILD: I object to that because he has admitted that he has never had any practical experience at all and that all that he knows on that subject is what he learned from the books.

Court: I don't recall, Dr. Fischer, that you have stated exactly your practical experience in reference to sugars and syrups.

A. I have—we have made a little syrup; that is the extent of my experience in the actual manufacture. I have been in a sorghum sugar establishment, which didn't last very long, in my home town, but I have read up on the subject considerably.

Court: What I was asking for particularly was your practical experience, your practical knowledge.

A. That is practically nil. I have analyzed a large number of syrups, but I have not manufactured them.

Court: What does your analysis show, what information does that give you. Not the specific analysis, but what do you learn, through your analysis of various syrups and sugars.

A. Well through analyses in connection with the reading and with observation as to colors, flavors, etc. I think I have learned considerable about syrups, molasses, etc. The analysis, for in-
663 stance, of molasses will to a certain degree, taken in connection with its flavor and its color, indicate something as to its character. I have had a good deal of experience in the analysis of maple syrup.

Court: It appeals to me that that is an experience which qualifies. He may answer.

Exception by defendant.

A. Well, the definition for syrup in the standards explains that point, for the definition says—

Q. You may answer it aside from the definition.

A. Such syrups, if they correspond to these definitions, and sorghum syrup and maple syrup at least are ordinarily prepared that way, are made by evaporating down the sorghum juice or the maple sap to a syrupy consistency without crystallizing out any of the sugar.

Q. You don't then crystallize out any of the sugar?

A. No.

Q. Now, next take molasses, and where there is a refinery and they are making sugar, how do they get the molasses—what is it

Mr. FAIRCHILD: I object to it as incompetent, he hasn't shown any competency to testify on that subject.

Court: I didn't understand he had, as to molasses.

A. From the analysis of a cane syrup such as I have described and the analysis of a molasses resulting therefrom, I can arrive at a conclusion as to the difference, especially in conjunction with my reading of it.

Q. Does that give you information as to the methods of manufacture, or does that give you information with reference to chemical constituents?

A. Well, that does with reference to chemical constituents, but taking into consideration the color of the resulting molasses and its flavor, I also know something of its treatment, I can arrive at a conclusion which I think, taken in conjunction with my reading on the subject, warrants me to speak with some authority.

Court: I think as a matter of fact that all this ground has been covered in the testimony.

Mr. OLIN: Perhaps it has. It wasn't clear in my own mind, it may be entirely clear in the court's mind.

Court: It doesn't appeal to me that Dr. Fischer is qualified to speak upon the production of molasses.

A. I have a definition of molasses in the standards which I helped develop as showing what molasses is.

Mr. OLIN: If the court feels he is not competent to answer the question, we will pass on.

Court: I think I shall sustain the objection.

Q. Dr. Chandler stated in his testimony, in testifying that refiners' syrup had cane flavor, that as long as the original starting point was the cane, you ought to have the flavor produced in any method of manufacture, a cane flavor. What do you say as to that?

A. I do not agree with that statement at all.

Q. And why do you say that?

A. Because, according to that statement, the term cane flavor would be meaningless. Both refiners' syrup and molasses would be

entitled to the term cane flavor; or a cane syrup such as I have described, made by evaporating the purified sap without removing any of the sugar, would be entitled to the term cane flavor. I think that the latter alone is entitled to the term cane flavor, because that flavor is so changed in the subsequent methods of manufacture as to not at all resemble the flavor of the product when evaporated to the consistency of a syrup without removing any of the sugar.

Q. What do you understand would be a correct definition of this term cane flavor?

665 A. The one that I gave, the flavor that is attached to a syrup when the juice is evaporated to the consistency of a syrup, or the flavor is very little modified if the juice is evaporated down to such a consistency as to form a concrete. That is the way in which we use the term flavor in connection with sorghum. That is the way we use it in connection with maple.

Q. Doctor, in the statement of the principles upon which the standards are based, which have been introduced in evidence, the third subdivision is this: "The definitions are so framed as to exclude from the articles defined substances not included in the definitions." You say that, don't you?

A. Yes sir.

Q. I wish you would state for the information of the court here in this case just what you understand by that.

A. To fix the standards in such a way that their meaning shall be perfectly clear and that they can not be abused when they are used in the enforcement of pure food laws, it is necessary to have such a statement, that not merely are these definitions into which anything else can be inserted, but the definitions are intended to be so framed as to exclude from the articles defined substances not included in the definition. Likewise it was the understanding of the standards committee in framing these definitions that the terms used, with their synonyms, alone should be used as designating the product described in the definition; for, again, otherwise, the standards would become meaningless, and worthless.

Q. An article was referred to here by counsel on the other side in the Universal Encyclopedia, written by Dr. Remsen?

A. Yes sir.

Q. Are you familiar with that article?

A. I read it.

Q. And you have it here, have you?

A. Yes sir.

666 Q. Do you know the date of it—about?

A. The date of it?

Q. Yes.

A. 1900.

Q. A certain portion was read there in which the words corn syrup was used?

A. Yes sir.

Q. Is that the only place where it appears?

A. I have carefully read through the article and that is the only mention I find of that kind.

Q. It's an article on what subject?

A. Article on the subject of glucose, and the term glucose is used quite frequently throughout the article.

Q. That states, doesn't it, the analyses of these various samples or various mixtures that are found in the academy report, substantially?

A. Yes sir. I think it is a copy from the academy report.

Q. And does that contain the analysis of the article sold under the name or purporting to be sold under the name "maltose"?

A. Yes sir.

Q. And his analysis there shows that that article contained how much maltose?

A. Six-tenths of one per cent.

Q. Thus indicating that it was what kind of an article?

A. As indicating that it was not maltose, and from the rest of the analysis it appears to be commercial glucose, although maltose is given in the list with corn syrup as one of the names of the liquid varieties under which it appears in commerce.

Q. Do you know whether Food and Dairy Commissioner Wright of Iowa attended the meetings at Jamestown and Mackinac?

A. I do not think he was present at Jamestown. He was
667 present at Mackinac, at least during part of the time—most of the time.

Q. Do you remember whether Commissioner Dunlop of Ohio was at these meetings?

A. Yes sir, I am certain he was at the Jamestown meeting and at the Mackinac meeting during the whole time.

Q. And do you know whether he made any objection to the adoption of these food standards?

A. I know he did not.

Mr. FAIRCHILD: He wasn't present at the time.

A. He was present—Oh, yes.

Mr. FAIRCHILD: At the time the vote was taken?

A. Yes, at the time the vote was taken Commissioner Dunlop was present.

Q. Do you know whether the rules that were referred to by counsel on the other side were promulgated by him or by his predecessor?

A. That was from 1906, was it not, the Ohio report?

Q. Yes, 1906. It was ending November some date, 1906.

A. Horace Ankenny was dairy and food commissioner of Ohio during all of 1906 and the three preceding years.

Q. Some statement was read here from the board of health I think of the state of Michigan of 1906 or 1907. Do you know whether the food and dairy commissioner of that state was at the Mackinac meeting at the time these standards were adopted?

A. You said board of health of Michigan?

Q. Yes, but I asked you if you knew whether the food and dairy commissioner of the state was present?

A. Of the state of Michigan?

Q. New Hampshire, was at the meeting at Mackinac?

A. I understood you Michigan.

Q. I mean New Hampshire.

A. The chemist of the board was present at the meeting at
668 Mackinac—I am not certain, I do not think he was present
at Jamestown.

Q. Did he make any objection to the adoption of these food standards?

A. No sir.

Q. Do you know who was the food chemist to the department in Illinois in 1905 and 1906?

A. Dr. Eaton was state analyst of Illinois, chemist for the dairy and food commission up to some time in 1906.

Q. That's the same Dr. Eaton that was at Portland?

A. Yes sir.

Q. Do you know who the food chemist to the department of Illinois now is?

A. Dr. T. J. Bryan, I believe.

Q. Was he present at the meeting at Mackinac, representing Illinois?

A. Yes sir, he was present at the meeting at Mackinac and the two preceding meetings.

Q. Did he make any objection to the adoption of these food standards?

A. No sir, he did not.

Q. Do you know personally his position on the matter?

A. He has stated his position on the matter to me.

Mr. FAIRCHILD: That is hearsay.

Q. There was some quotation read here from a German book, The Imperial German Board of Food Chemists. You have that book, doctor?

A. Yes sir.

Q. You have looked it through, have you?

A. I have read through the article on Starch, Sugar and Starch syrup.

Q. You notice the various headings?

A. That is the heading of the article, and I notice the names given to these products in the text of the book.

669 Q. And what are the names given in the text of the book?

A. With the exception of the one statement which Dr. Wagner translated, to the effect that "Starch sugar and starch syrup frequently occur in commerce under the names of potato sugar or potato syrup, more rarely as grape sugar," I find no reference to either the term "potato sugar" or "potato syrup" in the book.

Q. And, as a matter of fact, do you know whether this glucose made from the starch of potato or from the starch of corn is used as a syrup in Germany?

A. Do you mean table syrup?

Q. Yes.

A. It is very rarely used as a table syrup in Germany. During the two years that I lived in Germany, a little over two years, I

never saw it served once at a table, although I traveled very extensively through various parts of Germany and ate at various hotels and restaurants and private boarding houses (pensions.)

Mr. FAIRCHILD: Did you see any other syrups used?

A. No, they generally use honey instead of syrup. Table syrup. I didn't mean by table syrup, glucose mixtures, but I meant any of the syrups used on the table.

Q. There also was a reference made to the New International Encyclopedia. Have you examined that book?

A. I read through the book—no, I haven't read the book, I will take that back, but I looked through the article on glucose contained in that book.

Q. What do you find as to the term used to designate that article?

A. Under the head "Commercial Glucose" there appears first the statement: "The term glucose is also applied to mixtures of the substance described above with other carbohydrates, the various mixed products being otherwise called starch syrup, corn syrup, corn sugar, etc." With the exception of this reference to the term corn syrup, I fail to find any reference to the term corn
670 syrup, although the term glucose is used, and in one place it speaks of "syrup glucose".

Q. You heard, did you not, doctor, the definition given by Dr. Chandler of syrup?

A. Yes sir, I read his definition.

Q. As given in the compilation?

A. Of opinions of Chemists, compiled I think by him.

Q. Will you name some of the various substances that would fall properly within that definition other than what is commonly known or known as syrups at all?

A. His definition, as I understand it, is that any thick, sweet liquid is a syrup, no matter what kind of sugar it contains.

Q. And he adds to that on trial here even though it contained other elements and things that are sweet.

A. Under that definition of the term syrup, honey would certainly be included, likewise malt extract, condensed milk, mucilage of acacia with a small percentage of any sugar.

Q. How about glycerin?

A. I do not think glycerin would be included in it, since from the definition it appears that sugar must be one of the constituents, because he always speaks of sugar in it; although a mixture of glycerine with simple syrup would come under that definition.

Mr. OLIN: I am a little uncertain whether I introduced Exhibits 12 and 13, and I will therefore now offer them in evidence. Also Exhibits 6, 7, and 10.

Q. Now doctor, have you consulted those pages 13 to 17 inclusive that were introduced, found in the preparation of opinions submitted to the secretary at Washington and testified to by Dr. Chandler?

A. Yes sir, I have.

Q. Have you examined them with reference to determining how many authorities he mentions there, German authorities, that use

the term "potato syrup" or "starch syrup" in describing commercial glucose?

A. I have looked over all the German authorities, that is, books published in Germany, there is one published in Vienna which I have not included, but published in the German Empire.

Q. What do you find as a result of your examination?

A. I have looked up all these German authorities that use the term either "potato syrup" or "starch syrup" or both in this compilation, and I find that only one uses the term "potato syrup" and not "starch syrup". That book was published in 1845,—or the article published—it isn't quite plain, I think it's a book—yes, it is evidently a book. One given both, "potato syrup" and "starch syrup", while nineteen give "starch syrup" but not "potato syrup".

Q. You heard the list of Eminent Chemists, I think that was the characterization of them, who had given opinions that were submitted at Washington, and concerning whose opinions Dr. Chandler testified, you heard that testimony?

A. Yes sir.

Q. You have a copy of the same book, have you not?

A. I have.

Q. And part of those opinions were offered and received in evidence?

A. Yes sir, as I remember it.

Q. And you have examined those, have you?

A. I have.

Q. Since they were introduced?

A. Yes sir.

Q. Have you also examined those the authorship of which were given but which were not introduced in evidence?

A. Yes, I have, although I have not given them quite as careful attention as the others.

Q. Speaking of that class first, do they all sustain the contention made by Dr. Chandler for his definition here of the term "syrup" or "corn syrup"?

A. All of them sustain his definition of "syrup" and some go farther and apply the term syrup to any thick liquid of a syrupy consistency, whatever its composition and whatever its taste. I remember only one now who agrees with Professor Chandler in his definition for syrup, but evidently not in his definition for corn syrup, because he does not state that in his opinion. That is Ernst A. Lederle, who I believe was formerly president of the New York board of health.

Q. What page is that on?

A. On page 25.

COURT: Did I understand you to say that he uses "corn syrup"?

A. No, he does not. I believe the others, if I am right, all say that corn syrup is an appropriate term. He does not, and perhaps there are others who do not.

MR. FAIRCHILD: He doesn't speak about it at all, does he, doctor? He doesn't say anything about that. He just simply gives a general definition of a syrup.

A. He gives a general definition of a syrup, but I take it from the way that the other opinions are written that they were asked whether corn syrup was not a proper designation. I believe Professor Chandler so stated. And on looking over the list I see another one, on page 21, signed C. A. Goessman. There may be others. As I said before, I haven't looked through these other opinions very carefully.

Q. Generally, these gentlemen who have given these opinions, what do you say as to whether they are food chemists or not?

A. I believe there are only two who have had any experience at all in the enforcement of the laws, had anything to do with food control.

673 Q. One of them is Dr. Chandler?

A. One of those is Dr. Chandler, and the other Dr. Lederle, whom I referred to.

Q. Take the one on page 1, Professor Charles Baskerville. That is very brief, you may state it, and state whether that is a correct definition.

A. Professor Baskerville defines "syrup" as follows: "The term 'syrup' conveys the same meaning to the scientific and lay mind, namely, a thick, sweet solution of sugar. The designation 'corn syrup', indicating the source of the sugar, is justifiable".

Q. Now, what do you say as to that, "A thick, sweet solution of sugar".

A. I can only conclude that Professor Baskerville could not have had the composition of commercial glucose in mind when he gave that opinion.

Q. Why do you say that?

A. Because commercial glucose is not "a thick, sweet solution of sugar". It is a thick, sweet, or sweetish, solution of—primarily of one sugar, dextrose, and a small quantity of another sugar, and a considerable proportion of dextrin, which is not a sugar. Perhaps Professor Baskerville has in mind under the name "corn syrup" solution of a starch sugar. One would almost think so, from his definition. I can reach no other conclusion.

Q. You find in the opinions one on page 3, do you not, by Professor William H. Brewer, of New Haven, Connecticut?

A. Yes sir.

Q. You understand he is one of the committee who acted in making up the academy report?

A. Yes sir.

Q. That wasn't, I believe, offered in evidence?

A. Not as I understand it.

674 Q. Now, take, just for example here, the one given on page 2 as characteristic of a number of them, by Marston T. Bogert, and where he states: "It is my opinion that the word 'syrup' is not a technical one, but of general significance. As such it is usually understood to mean a thick, sweet liquid. Frequently, it is applied to any liquid of syrupy consistence, totally irrespective of whether the liquid is sweet or not". What would you say of such a definition as that for any practical use in the administration of a food law?

A. I would consider it absolutely worthless.

Q. Now, why do you say that?

A. First of all, taking the first definition, somewhat more restricted, as applying to any thick, sweet liquid, it would include extract of malt, sweetened condensed milk, and even glycerin; while in the broader sense that he gives later, "any liquid of syrupy consistency", he would have to include even syrupy phosphoric acid, or you could include it. He also says that the term "corn syrup" convey a perfectly truthful meaning, that of a thick, sweet liquid, produced in some way from corn, and it would be so understood by the general public". My opinion is that the general public have in mind a specific way in which it is produced from corn—namely, it would associate this method of manufacture with a method of manufacture of sorghum or of maple, with which most people in this state, I believe, are more or less familiar. And if he says that corn syrup could be applied to a thick, sweet liquid produced from corn, even making it more specific, treating a part of the corn, the starch, the greater percentage, with an acid in the manufacture of glucose and term that "corn syrup" then it would be just as correct to take the greater part of the maple wood, cel-ulose, treat that with sulphuric acid, which the evidence shows will produce also glucose, take this sweet liquid so produced and
675 call it maple syrup, because that would be also "a thick, sweet liquid" produced in a similar way as glucose is from corn, from the maple tree.

Q. Dr. Chandler's opinion and report extends, does it not, from page 5 to page 18 inclusive?

A. Yes sir.

Q. Take another opinion here that you find on page 22, by Walter S. Haines, Professor of Chemistry, etc. Bush Medical College, what do you say as to that?

A. That definition or statement is as follows: "Both by common usage and by dictionary authority the word 'syrup' is properly applicable to a thick solution of glucose, and since the latter is invariably made from corn in this country, the term 'corn syrup' with us is literally descriptive and entirely appropriate".

Q. That is his statement?

A. Yes sir. Commercial glucose can not be considered "a thick solution of glucose, either chemically or commercially speaking. Commercially speaking, it is glucose and not a solution of glucose. Chemically speaking, it is not a solution of glucose, but a solution of glucose with much dextrose, dextrin and a little maltose and the minor mineral constituents.

Q. Might that more properly refer to a solution of sugar with glucose?

A. Yes sir, a solution of starch sugar.

Q. Now, another opinion that is given is that of Dr. Charles Loring Jackson of Harvard University, at page 23. What does he say about that?

A. He says: "In my opinion the word syrup means a thick, sweet solution of sugar or sugars, and properly can not be confined to

solutions of cane sugar". Here again, commercial glucose is not merely "a thick, sweet solution of sugar or sugars" but it includes a very high percentage of a substance which is not a sugar.

676 Q. Doesn't his definition indicate that he has in mind glucose sugar rather than the commercial product?

A. Yes, he might. And again, the only other thick solutions of sugar, with the exception of honey, that I can think of that are sold commercially at the present time for food purposes would be the syrups of our standards.

Q. What does it say at the end of his opinion?

A. "I give these opinions with some hesitation, as I am in no way an expert on the subject of sugars".

Q. Now, take page 26, Exhibit 176, the statement by J. W. Mallet, Professor of Chemistry at the University of Virginia. He states: "The word syrup is generally applied to any watery solution of viscid consistence and sweet taste, whatever may be the particular saccharine substance or substances to which this taste is due". What do you say as to such a definition as that?

A. Well, that definition, as professor Chandler's, would include malt extract and honey and sweetened condensed milk, the mixture of mucilage of acacia and sugar.

Q. Really the same definition as given by Dr. Chandler?

A. Yes sir. He also states there that "The word corn is in the United States generally understood to mean the grains of 'Indian corn' or 'maize'. I do not agree with that, because I think that the meaning of the word "corn" in the United States depends upon the context, and if a person speaks of "corn syrup" that to the ordinary consumer or purchaser brings up the idea of sorghum and a similar method of preparation. In my investigation I might say on that particular subject, because I made a large number of inquiries, I have only found one who thought corn syrup came from the grain of corn, that the solids that were present—that is, of laymen, not chemists—that the solids that were present——

677 Mr. FAIRCHILD: Are you speaking about chemists or are you speaking about laymen?

A. I am speaking about laymen, intelligent laymen.

Objected to as incompetent and mere hearsay.

Objection overruled.

Exception by defendant.

A. The person to whom I refer is a jobber of groceries in the city, Mr. Blackburn.

Court: Now, are you speaking of the result of your investigations or what he told you, his investigations?

A. I am telling—Mr. Emery first and I subsequently, asked him——

Court: Are you stating what Mr. Blackburn said or are you about to state what you yourself have ascertained by inquiry among the people?

A. I was going to say what I ascertained by inquiry of Mr. Blackburn as to his own opinion of this word.

COURT: I didn't so understand your statement. The objection will be sustained then.

Q. There is an opinion at page 28, Exhibit 178, introduced by a gentleman signed Samuel P. Sadtler, who, I judge, was a professor of Philadelphia. In that he says: "By analogy with the use of the term 'Kartoffel Syrup' or potato syrup, used almost exclusively in Germany to designate the corresponding product made from potato starch, it should be called 'Corn Syrup'."

Q. Well, I believe I have shown from Professor Chandler's compilation that the term "potato syrup" is not "used almost exclusively in Germany", but the facts are quite the reverse.

MR. OLIN: We offer to put in evidence the proposed bill that has been prepared by the representatives of the State and National Dairy and Food Associations, carrying out the instructions of the vote unanimously adopted at Mackinac.

Objected to as incompetent and immaterial.

678 Objection sustained.

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, you say that the cane flavor, as I understood you, is the flavor that is attached to the syrup when the juice is evaporated down to the consistency of a syrup—is that it?

A. I believe I added to it "and if it is evaporated", "or if it is evaporated to a concrete".

Q. If it is evaporated to a concrete?

A. Yes. I associated that idea of a syrup flavor with the flavor of maple syrup and of maple sugar, this cane concrete corresponding to the maple sugar made by evaporating the cane sap to such a consistency that upon cooling it will congeal as it were, form one solid mass.

Q. Does it take the flavor then from the concrete itself?

A. The flavor exists in there as it does in maple sugar. If you would add a little water to that and would *centrifuge* out the liquid portion, the flavor would primarily remain in the liquid portion.

Q. Do you think by carrying the process any farther than that you would get any different flavor?

A. Yes sir.

Q. How—why?

A. You would get, due to the chemical changes and to the formation of a large amount of caramel, a flavor, so the original flavor would no longer be recognizable. That is what you actually do in the manufacture of molasses.

Q. Do you get any caramel at all in your first process?

A. A slight amount.

Q. A slight amount?

A. Yes sir.

Q. Now, do you get any different flavor by carrying it on, 679 or simply a stronger flavor?

A. You get a different flavor, because if you dilute molasses you can never restore it back to the original flavor. If it were merely a question of dilution, if you dilute your molasses back with

sugar and water, you ought to get back the original flavor, but that isn't true.

Q. Would it make any difference if you evaporated it in a vacuum or in an open kettle?

A. Oh, there would doubtless be some difference.

Q. Wouldn't there be a very great difference?

A. Yes, there might, and might not, depending upon the care with which the operation was conducted.

Q. Well, the amount of this caramel that you say you would get would depend a good deal upon the method of manufacture?

A. Yes sir, the higher the heat you apply the greater the amount of caramel that is formed.

Q. The flavor or the taste would be just the same, wouldn't it, so far as the flavor is concerned, but it would be stronger, you would get a concentrated taste in one instance, or flavor, where in the other you would get a milder, not concentrated?

A. No, you would not, because as explained before, if you dilute up that strong solution so-called and dilute it up with sugar and water, the only thing that you have taken out in the making of a molasses, you can never restore it back to the original odor, and if it were merely a concentration that would be possible.

Q. Shouldn't we say an accentuated one, rather than a concentrated one?

A. It would be both accentuated and changed.

Q. And you think that you couldn't in any proper sense at all get the cane flavor?

A. I shouldn't call it a cane flavor. The moment you do you are lost.

680 Q. What right have you to stop at the first process rather than the last one in determining the flavor?

A. If I manufacture maple syrup or maple sugar, what we call maple flavor—

Q. We are not talking about maple, but cane.

A. I used maple as a more familiar example to myself and others and because I have had some experience with the manufacture of maple and not with the other.

Q. Is there any substantial difference between the flavor that you get in the maple taffy, as we used to call it when we were boys and made it, and the sugar itself?

A. The what?

Q. The candy or taffy that you make out of the maple syrup and the sugar itself—isn't the flavor the same, although the process is carried further?

A. I don't think I ever made any maple taffy.

Q. You never did?

A. No sir.

Q. Well, what is the reason for calling the flavor a cane flavor at the first step in the process rather than in the last step of the process?

A. I wouldn't want to stop exactly at the first step, but I would certainly want to stop it before the flavor had been changed so as to be no longer recognizable.

Q. Well, what flavor?

A. The flavor that true cane syrup will have and the first cane concrete will have.

Q. You do really then want to stop at the end of the first process?

A. If you regulate your process so that the changes will be slower why, then you can perhaps change your method of evaporation and concentrate it still more and still have that distinctive flavor which you associate with true cane flavor.

681 Q. Now, that is just simply an arbitrary limitation on the flavor of the solution?

A. I don't think so.

Q. You stopped at the first stage I understood you instead of the third?

A. No, I don't think it is arbitrary.

Q. Where do you get your authority for doing it?

A. I think that would be the popular understanding of the term "cane flavor". You would have to stop with that popular understanding. I don't think any one would say that Black Strap Molasses, the lowest grade of molasses, had cane flavor, because it doesn't resemble in any way an original flavor, and if you dilute it up ever so much you can never get back what people understand by cane flavor, and if you did the same thing with maple you would get the same result, you could dilute it ever so much, you could never get it back and nobody would recognize the syrup by taste or flavor or odor as maple syrup.

682 Dr. T. B. WAGNER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. You get what is called molasses, don't you, by making the sugar out of the cane?

A. In some cases.

Q. Well, that is the usual way of doing, isn't it?

A. Yes, I believe so.

Q. Now, they get, do they not, what they call the first sugar, the second sugar, and the third sugar—they carry it that far?

A. In some sugar houses.

Q. And some don't carry it so far?

A. Others don't.

Q. If you stop with the first crystallization the product would be a high grade?

A. I don't think so—pardon me, for what purposes?

Q. For molasses?

A. I don't think so.

Q. At what process would you expect to get a high grade molasses?

A. The product as manufactured in modern sugar works, after the first crystallization, would not have a pleasant flavor.

Q. At what stage of crystallization, which one of these processes, the first, second or third, would you get what you call a fine grade of molasses?

A. Now, to tell you the actual conditions as I saw them in Louisiana, we don't make any edible molasses at all.

Q. You don't think you do?

A. I know we don't. In fact there was a situation at one time at a plantation where we ran short of packages and we ran, for want of room, at least four or five hundred thousand gallons into the ditch; it had no value.

Q. Are you speaking now of very recent years?

683 A. Oh, no, this was 1896, 1897, and I should say that today with the improved methods the results are still more along the lines I am speaking of; in other words, the sugar content is still more reduced in the molasses.

Q. That is, they seek to get more sugar out of it?

A. They must.

Q. And the more grades of sugar they get out of it the poorer would be the molasses?

A. Yes, the molasses are heated so often. The third molasses stand in the hot room for three or four months at a time, and it makes the product bitter, no longer sweet.

Q. Now, there is this difference then between what we call molasses and the so-called syrup, and I will leave out your product in that for the present, that in syrups they have all of the sugar and in the molasses they don't?

A. In the syrups you have a certain amount of sugar.

Q. Well, all there was in the original sap or juice, whatever was there, you haven't crystalized out the sugar?

A. I tried to make that plain. That part of it is actually not known that you speak of.

Q. I am not talking about that, I am talking about the qualities in syrups. You don't take out the sugar at all in making maple syrup?

A. I am speaking only of cane. I have no knowledge as to maple syrup, the manufacture.

Q. Or sorghum?

A. Or sorghum. We use sorghum in our business to a certain extent. I have no knowledge as to the manufacture.

Q. Now, as to this refiners' syrup, not as to the flavor, but that is made, as I understand from raw sugar?

A. Yes sir.

684 Q. That is, on some of these smaller plantations they don't have refineries?

A. Yes.

Q. And they make what is called a raw sugar, particularly in the tropics, they don't seek, as I understand, to make a molasses when they do that?

A. No—well, let me see, I think they do in that case. No, I guess not.

Q. No, I guess not.

A. I don't know. Perhaps I don't understand you.

Q. Well, where they make this raw sugar that is afterwards refined they don't seek at the same time to make any molasses such as

they do where they have a refinery and crystalize the sugar out and finally do it all up in one establishment?

A. No, in those cases they usually make rum out of the molasses.

Q. Yes, whatever it is, they don't make a molasses that is used on the table at all?

A. Very little. There is some amount of course.

Q. And the raw sugar contains a good many impurities, and they send that to the refinery?

A. Yes.

Q. And you get this refiners' syrup in the process that has been stated by Professor Chandler, and so on?

A. Yes sir.

Q. And we will leave the flavor of it to the experts?

A. If you will permit me, I would like to make a statement which Dr. Chandler didn't draw attention to yesterday; which has a bearing on the refiners' syrup and the flavor of it. The statement was made by Dr. Fischer that the bone-black which is used in filtrating the liquors imparts, if not a flavor, at least an increase of ash in the syrup. Now, if that were true, it wouldn't be possible for us to put

685 a glucose on the market containing so little ash as it does. We filter our glucose, as Dr. Chandler said yesterday to me in discussion, over fully ten times as much bone-black as they do in sugar refineries. Now, if that brings the ash contents in the refiners' syrup up to eight or nine per cent., the glucose should contain fully ten per cent of ash.

Q. Does that answer it fully?

A. Of course it does, and more so. And now I will enlarge upon that point. The liquors in a sugar refinery are slightly alkaline and apt to dissolve out less of the mineral constituents of bone-black, whereas in the glucose factories the liquors are run over bone-black in an acid condition and are apt to extract a much greater part of the mineral constituents. So that statement does not appeal to me.

Q. Don't the analyses of refiners' syrup on the market show a high percentage of ash?

A. Well, Dr. Chandler quoted a very low one yesterday, two per cent., and he said that if a refiners' syrup contained such a high percentage as eight or nine per cent that it very likely would be due to the fact that they had mixed sugars in there at the time of refining; in other words, that they had beet sugars with cane sugars.

Q. Well, as I understand Dr. Chandler, not in his direct, but in his cross-examination, he didn't want to say that there wasn't some change produced in this refiners' syrup by reason of putting in the bone-black and running it through these two or three or four different processes.

A. He stated that the changes were due to the heat employed, to the repeated heating.

Q. Well, he didn't want to say to what it was due.

A. I understood him to say that the bone-black could not impart any flavor or alter it.

686 Q. I think his first testimony on direct examination was that it had no such effect at all, but after dinner I think on

cross-examination he didn't want to leave it that way, but stated there might be a change produced, but he didn't know just what would cause it.

A. I believe he said that if the bone-black was not in first-class condition——

Q. No.

A. Yes, he did make a statement along those lines.

Q. He might have made that, but he made the other.

A. There might possibly be such a thing as an off syrup, off in flavor.

Dr. T. B. WAGNER, being recalled, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Doctor, what is your idea of a cane flavor?

A. I shall dispose of that with six words, or something like that, that I fully agree with Professor Chandler.

Mr. OLIN: That ends it?

A. Yes sir.

Q. You made a statement that the more sugar was taken out of the molasses the poorer it would be?

A. The molasses?

Q. Yes.

A. Well, I am only speaking of the refineries where they finish up the entire juice of the cane in their own plant.

Mr. OLIN: He did state that they didn't get the first or finest quality if they stopped with the first crystallization; then said if you carried it on further and far enough you would get a product that would be bitter.

687 A. No. There is certainly a misunderstanding about that.

Q. Go on and explain what you mean?

A. We have two distinct cases there, one is the sugar houses, where they run the exhausted juices right on the premises, that is done only in Louisiana, and the resulting molasses are not entitled to the name molasses at all, they are simply a watery extract of nitrogenous substances and a lot of ash mineral constituents from the cane, and that product is used solely for technical purposes, it is not put on the market as an edible product, nobody would think of eating it. Then we have to consider the sugar houses, as I said, principally the tropics, Cuba, Porto Rico, the Philippine Islands and Hawaii, where they make raw sugars and work the residue, the molasses, which may be a very fine product, into rum, by a process of distillation and ship the raw sugars into this country for refining purposes, from which we obtain the refinery syrup.

Testimony closed.

688 Thereupon the court continued the action from time to time until the 2nd day of March, 1909, at 2 P. M. at which time the cause was argued by counsel and submitted to the court

for decision. On April 16th, 1909, the court made and filed its decision and order as follows, to wit:

(Title of Court and Cause.)

Memorandum of Decision.

By the COURT: In the consideration of the questions here presented for determination, the court should accord to the legislature the highest consideration, not condemning its action so long as any reasonable basis can be discovered for upholding the constitutionality of chapter 557 laws 1907. But if none can be discovered, the court must put the stamp of judicial disapproval upon the act.

If there be any fraud or deception in the sale of the article here in question, the case comes clearly within the rule of *Plumley v. Massachusetts*, 155 U. S. 461. In that case the supreme court upheld the right of the state to prescribe the conditions under which a wholesome food product, the subject of interstate traffic, could be sold in original packages. The decision was based on the ground that it is within the power of a state to exclude from its markets any food product so prepared as to cause it to look like an article of food in general use and thereby mislead the public into buying what it would not otherwise purchase.

The evidence convinces the court that the public generally understand a "syrup" to be the concentrated sap of a sugar producing plant. The term "corn syrup" naturally suggests that the product is a syrup produced from corn. Certainly the name carries no suggestion that it is produced by the action of acid on starch, which may be made from a score of different substances as well as from corn. But even if the product here in question were properly termed a syrup, that is not the controlling fact. As was said 689 of *oleomargarine*, "It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other." *Plumley vs. Massachusetts*, 155 U. S. 461, 475; 39 L. Ed. 223, 228. Even if this product be a syrup, the difference in the cost of producing it, if no other factor were involved, would make it a fraud to sell this article to the public under a name that induces the belief that it is procuring a syrup produced in the usual way by boiling down the sap of a sugar producing plant.

The fact that the product here in question has become a recognized article of commerce under the designation "corn syrup" does not affect the question we are considering, if its sale under this name does in fact mislead or deceive the public. *Crossman v. Lurman*, 192 U. S. 189; 24 Sup. Ct. Rep. 234, 238.

The question is not whether the term "corn syrup" is coming into general use, the question is whether this name deceives the public and leads it to buy that which it would not otherwise purchase. Whether the product be wholesome or unwholesome, whether the consumer have valid reasons or only unreasoning prejudices in regard to the matter, the public has a right to know, and the state the

right to compel the disclosure of, what is contained in all food products offered to the consumer.

State vs. Aslesen, 52 N. W. 220, 221;

Stolz v. Thompson, 46 N. W. 410.

When the defendants established the fact that the public generally would not purchase the product if it were put out under the name of glucose (which is shown to be a proper designation), they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public. So that, even if the pails in which these defendants sold this product were the original packages of interstate commerce, the court concludes that 690 the case falls within the rule of Plumley vs. Massachusetts, supra, and that the statute in question is not an unwarranted interference with the right of the federal government to regulate interstate commerce.

It will be observed that the statute in question does not attempt to impose such unreasonable restrictions on the sale of the product as were considered in Collins v. New Hampshire, 171 U. S. 30; or to absolutely prohibit its sale, as was done in Pennsylvania, Schollenberger v. Pennsylvania, 171 U. S. 1; but leaves the producer and the merchant free to sell it, when properly labeled.

Nor did the passage of the national pure food law take from the state the power to regulate the sale of the product after it had become incorporated in and mingled with the mass of property of this state. The federal government has power to regulate the branding of articles of commerce so long as they are the subject of interstate commerce. But when the importer has so acted on the thing imported that it becomes incorporated into and mixed with the mass of property in this state, it loses its distinctive character as an article of commerce and becomes subject to all lawful regulations which the state may enact. This rule finds apt illustration in the following cases:

Welton v. Missouri, 1 Otto 275; 23 L. Ed. 347, 350;

May v. New Orleans, 178 U. S. 493; 44 L. Ed. 1165, 1167-8.

Any other application of the federal law would delegate to congress the power to regulate the internal affairs of the state and deprive it of all right to exercise its police powers in protection of the public.

It may well be doubted whether the pail in which each of these defendants sold this product could in any event be considered an original package of interstate commerce. In the decision on which the original package doctrine is based (Brown v. Maryland, 12 Wheat 419) Chief Justice Marshall limits the application of the doctrine to the property of the importer while remaining in his warehouse 691 house in the original form or package in which it was imported. Speaking for the United States supreme court, Mr. Justice Brown has recently pointed out the fact that in all the cases which have arisen in that court where the original package doctrine was applied, "the packages were of such size as to exclude the idea

that they were to go directly into the hands of the consumer." *Austin v. Tennessee*, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 138.

Upon reason and authority it would appear that the wooden case in which these pails were shipped into the state was the original package of interstate commerce, and that when this case was opened and these pails taken out and mingled with other goods in the stores of the defendants they were not original packages, but goods subject in all ways to the regulations prescribed under the police powers of this state.

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1170.

Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 137.

The mere fact that such regulations may in some degree affect interstate commerce is not sufficient to condemn the act, if otherwise within the proper exercise of such power. Within the legitimate exercise of the police power the state may prescribe such labeling as may reasonably be necessary to protect its people from fraud or deception in the sale of food products.

The fact that the title to the act in question declares the law one to protect the public health does not conclude the courts. They may determine the fact and give the law effect according to its scope and tenor, even though that may not be in literal accord with the title of the act.

State v. Redmon, 114 N. W. 137, 141;

Field, J. in Powell v. Pennsylvania, 127 U. S. 678; 32 L. Ed. 253, 260.

As we have seen, there is such danger that the public may be misled and defrauded into buying a product which it would
692 not otherwise purchase, if the name "corn syrup" is used, as to suggest some reasonable necessity for a remedy, affordable only by legislative enactment, as to efficiently invite public attention thereto. Such being the case, it is primarily a legislative function to determine what means shall be adopted to protect the public. It is only when the boundaries of reason have been so clearly exceeded as to violate some constitutional prohibition, express or implied, that the court has any power to interfere with the exercise of this legislative power. *State v. Redmon*, 114 N. W. 137. When the state acts within these bounds, the state does not deprive any citizen of liberty or property without due process of law.

Wilkinson v. Rahrer, 140 U. S. 545; 35 L. Ed. 572, 574;

Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 134.

The constitution does not confer on any man the right to keep secret the composition of the substance which he offers to the public as a food product. To compel him to disclose its composition does not deprive him of his property without due process of law (*State v. Aslesen*, 52 N. W. 220, 221; *Stolz v. Thompson*, 46 N. W. 410, 411), even though it may prevent him from using a trade name. *State v. Tetu*, 107 N. W. 953.

He may be compelled to sell the product for what it actually is, upon its own merits, and is not entitled to the benefit of any additional market value which may be imparted to it by resorting to any means which shall make it resemble, or sell for, or in the place of, any well known food product. *Plumley v. Massachusetts*, 155 U. S. 461, 475; 39 L. Ed. 223, 228.

In *People v. Harris*, 97 N. W. 402, the only question presented to the court was whether the legislature had prohibited the sale of glucose under the name "corn syrup." The state had by stipulation and concession taken out of the case practically all the questions before this court for consideration. As no constitutional questions were discussed in that case, it throws little light upon the constitutional questions under consideration in the case at bar.

The court concludes that none of the constitutional rights of the defendants have been violated by chapter 557 laws 1907.

Turning to the question of whether the reference to the standards promulgated by the secretary of agriculture is a delegation of legislative power, the case would seem to fall squarely within the rule of *Butterfield v. Stranahan*, 192 U. S. 470, 494; 24 Sup. Ct. Rep. 349, 355; approved in *St. Louis Ry. Co. v. Taylor*, 210 U. S. 281, 286-7, and *Coopersville Creamery Co. v. Lemon*, 163 Rep. 145.

But the question of the effect of reference to these standards is not involved in the cases at bar. Assuming that this reference to these standards is a delegation of legislative power, and giving the act that construction which the court must give it when its constitutionality is questioned, it is not reasonably clear that the legislature would not have enacted the portions of chapter 557 laws 1907 relating to mixed syrups, without that part which contains the reference to the standards. The part of the act relating to mixed syrups is complete in itself. It prescribes exactly the label required for each different mixture and defines and classifies these mixtures without any reference to the standards or to the preceding part of the section. Even if the part of the act relating to unmixed syrups be void (a conclusion which the court has not arrived at), the balance of the act is independent of these provisions, and valid and enforceable.

The court concludes that the portion of chapter 557 laws 1907 here under consideration is a valid constitutional enactment. Under the undisputed evidence the defendants are guilty of the offenses charged against them. Counsel for the defendants may produce them before the court of April 26th, 1909, at 2 P. M. to receive sentence, at which time the court will consult with counsel as to the necessity of formal findings.

Dated April 16, 1909.

By the COURT:

On April 26th, 1909, at 2 P. M. the defendant appeared before the court for sentence as in the decision and order required. Whereupon the court proceeded to and did convict the defendant of the charge in the complaint and warrant set out, and sentenced him to

pay a fine of \$25.00 together with the costs of the action, amounting in all to \$105.50, and in default of such payment that he be confined in the county jail of Dane County until such fine and costs are paid, not exceeding sixty days.

It being made thereafter, upon said 26th day of April, 1909, to appear to the court that a writ of error in said action had on said 26th day of April, 1909, been duly issued out of the Supreme Court for a review of the judgment and sentence of the court, returnable at the August term of said court for 1909, and the defendant having filed in the said Circuit Court his bond duly approved by the court in the sum of \$250.00 as directed by the court conditioned upon the defendant appearing in said supreme court during the said August term thereof and prosecuting said action to a final decision and judgment under such writ of error and abiding the judgment and sentence of the said court thereon, and in the mean time keeping the peace and being of good behavior, the court did stay the execution of its said judgment and sentence until the final hearing and decision of the said supreme court under said writ of error and discharged the defendant in the mean time.

It is hereby stipulated and agreed by and between the parties to this action, by their respective attorneys, that the following named exhibits shall be returned by the clerk of said circuit court to the clerk of the supreme court as a part of the record herein, either party to be at liberty to refer to the same upon the argument of said cause in the supreme court:

Exhibits B, C, D, E and F. Exhibit No. 1, Exhibit 1a, Exhibit 1b, Exhibit 1c, Exhibit 1d, Exhibits 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16; also Exhibits 28, 36, 37 and 156.

And because the foregoing evidence, offers, rulings, orders, exceptions, opinions and decisions do not appear of record herein, I, the undersigned, the circuit judge who tried said action, have, on due notice, settled and signed this bill of exceptions to the end that the same may be made part of the record herein, and I
695 hereby certify that this bill of exceptions contains all the evidence given on both sides and received by the court in said action.

Dated this 27th day of Sept., 1909.

E. RAY STEVENS,
Judge Ninth Judicial Circuit.

Copy of
Exhibit No. 21

WISCONSIN STATE JOURNAL, MADISON, NOVEMBER 20, 1907.



Help down
a hot griddle cake
on a cold morning with

Karo

CORN SYRUP

The health-giving essence of
golden corn. Tastes good
—does good.

In air-tight tins, 10c., 25c., 50c.

CORN PRODUCTS
MANUFACTURING CO.

EXHIBIT 21
EDWARD H. SMITH

Copy of
Exhibit 22.

LE MADISON DEMOCRAT, TUESDAY MORNING, FEBRUARY 11, 1908.



For EXHIBIT 22
"Goodness"
Sake OF EDWARD H. SMITH
OFFICIAL REPORTER

Karo

CORN SYRUP
*A Treat That
Makes You Eat*

**Karo
Corn Syrup**
is more than "goodness"
—it's a food so valuable in
its properties that author-
ities class it high among
food products. Not only
nutritious but delicious
—a golden syrup of ex-
quisite flavor that pleases
all palates. For every use
from griddle cakes to
candy.
10c., 25c., and 50c.
In air-tight tins

CORN PRODUCTS MANUFACTURING CO.

CHAMPION of all Corns

698



Copy of
Exhibit 23.

THE MADISON DEMOCRAT, THURSDAY MORNING, FEBRUARY 20, 1908



Help down
a hot griddle cake
on a cold morning with

Karo

EXHIBIT 23
EDWARD H. SMITH
OFFICIAL REPORTER

CORN SYRUP

The health-giving essence of
golden corn. Tastes good
—does good.

In air-tight tins, 10c., 25c., 50c.

CREN PRODUCTS
MANUFACTURING CO.

Copy of
Exhibit 24.

THE MADISON DEMOCRAT, THURSDAY MORNING, FEBRUARY 27, 1908.

EXHIBIT 24
EDWARD H. SMITH
OFFICIAL REPORTER

The Best Spread For Bread

—muffins, biscuit,
buckwheat cakes
or waffles.

Karo

CORN SYRUP

The delicious extract of
whole corn of unequalled
quality and flavor.

*Fine and Dandy for
Griddle Cakes to Candy*

In air-tight tins, 10c, 25c, 50c.

CORN PRODUCTS MFG. CO.



700



Copy of
Exhibit 25.

THE MADISON DEMOCRAT, THURSDAY MORNING, MARCH 19, 1908.



Help down
a hot griddle cake
on a cold morning with

Karo

EXHIBIT 25
EDWARD H. SMITH
OFFICIAL REPORTER

CORN SYRUP

The health-giving essence of
golden corn. Tastes good
—does good.

In air-tight tins, 10c., 25c., 50c.

CORN PRODUCTS
MANUFACTURING CO.

701



Copy of

Exhibit 26

THE MADISON DEMOCRAT, THURSDAY MORNING, APRIL 2, 1908.

**The Best Spread
For Bread**

—muffins, biscuit,
buckwheat cakes
or waffles.

Karo
CORN SYRUP

The delicious extract of
whole corn of unequalled
quality and flavor.

*Fine and Dandy for
Griddle Cakes to Candy*

in air-tight tins, 10c, 25c, 50c.

CORN PRODUCTS MFG. CO.

EXHIBIT 26
EDWARD H. SMITH
REPORTER



702



Copy of

Exhibit 27.

2

**The Best Spread
For Bread**

—muffins, biscuit,
buckwheat cakes
or waffles.

Karo
CORN SYRUP

The delicious extract of
whole corn of unequalled
quality and flavor.

*Fine and Dandy for
Griddle Cakes to Candy*

In air-tight tins, 16c, 25c, 50c.

CORN PRODUCTS MFG. CO.

EXHIBIT 27
EDWARD H. SMITH
OFFICE

703



696

Invoice No. 148.

Corn Products Manufacturing Co.,
Heyworth Bldg., 42 E. Madison St.

CHICAGO, June 4, 1907.

PRO. 72.

Order No. 2292.

Your order No. —.

Cont. G 3079.

Sold to Teckemeyer Candy Co., Madison, Wis.

Terms: Net Cash Ten days.

C. & N. W. 95784.

C. & N. W.

Packages.	Description.	Lbs.	Price.	Items.	Amount.
50 bbls.	Crystal 3 Star Glucose, 35614 — 2894.	32720,	2.14		\$700.21

Freight prepaid.

Broker W. F. Stark.

W.

B. X.

June 13 paid.

6/8*

N. W. R. R.*

(Exhibit A Edward H. Smith, Official Reporter.)

[* In pencil in copy.]

(Here follow labels marked pages 697 to 703.)

EXHIBIT 34.

(Omitting Immaterial Parts.)

*Circular No. 19.*UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY.

Standards of Purity for Food Products.

Superseding Circulars Nos. 13 and 17.

Supplemental Proclamation.

Referring to Circular No. 13 of this Office, dated December 20, 1904, and to Circular No. 17 of this Office, dated March 8, 1906, the following food standards are hereby established as superseding and supplemental to those proclaimed on the dates above named.

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., June 26, 1906.
1508—No. 19—06—1.

Letter of Submittal.

The Honorable the Secretary of Agriculture.

SIR: The undersigned, representing the Association of Official Agricultural Chemists of the United States and the Interstate Food Commission, and commissioned by you, under authority given by the act of Congress approved March 3, 1903, to collaborate with you "to establish standards of purity for food products and to determine what are regarded as adulterations therein", respectfully report that they have carefully reviewed, in the light of recent investigations and correspondence, the standards earlier recommended by them and have prepared a set of amended schedules, in which certain changes have been introduced for the purpose of securing increased accuracy of expression and a more perfect correspondence of the chemical limits to the normal materials designated, and from which standards previously proclaimed for several manufactured articles have been omitted because of the unsatisfactory condition of trade nomenclature as applied thereto; and also additional schedules of standards for ice creams, vegetables and vegetable products, tea and coffee. They respectfully recommend that the standards herewith submitted be approved and proclaimed as the established standards, superseding and supplementing those established on December 20, 1904, and March 8, 1906.

The principles that have guided us in the formulation of these standards are appended hereto.

The several schedules of additional standards recommended have been submitted, in a tentative form, to the manufacturing firms and the trade immediately interested, and also to the State food-control officials for criticism.

Respectfully,

WILLIAM FREAR,
EDWARD H. JENKINS,
M. A. SCOVELL,
H. A. WEBER,
H. W. WILEY,

*Committee on Food Standards, Association
of Official Agricultural Chemists.*

RICHARD FISCHER,

Representing the Interstate Food Commission.

Washington, D. C. June 26, 1906.

Food Standards.

C. Sugars and Related Substances.

a. Sugar and Sugar Products.

Sugars.

706 1. Sugar is the product chemically known as sucrose (Saccharose) chiefly obtained from sugar cane, sugar beets, sorghum, maple and palm.

* * * * *

4. Masecuite, melada, mush sugar, and concrete are products made by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semi-solid consistence, and in which the sugar chiefly exists in a crystalline state.

Molasses and Reefiners' Sirup.

1. Molasses is the product left after separating the sugar from masecuite, melada, mush sugar, or concrete, and contains not more than twenty-five (25) per cent of water and not more than five (5) per cent of ash.

2. Refiners' sirup, treacle, is the residual liquid product obtained in the process of refining raw sugars and contains not more than twenty-five (25) per cent of water and not more than eight (8) per cent of ash.

Sirups.

1. Sirup is the sound product made by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar.

2. Sugar-cane sirup is sirup made by the evaporation of the juice of the sugar-cane or by the solution of sugar-cane concrete, and

contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

3. Sorghum sirup is sirup made by the evaporation of sorghum juice or by the solution of sorghum concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

4. Maple sirup is sirup made by the evaporation of maple sap or by the solution of maple concrete, and contains not more than thirty-two (32) per cent of water and not less than forty-five hundredths (0.45) per cent of maple sirup ash.

5. Sugar sirup is the product made by dissolving sugar to the consistence of a sirup and contains not more than thirty-five (35) per cent of water.

707

b. Glucose Products.

1. Starch sugar is the solid product made by hydrolizing starch or a starch-containing substance until the greater part of the starch is converted into dextrose. Starch sugar appears in commerce in two forms, anhydrous starch sugar and hydrous starch sugar. The former, crystallized without water of crystallization, contains not less than nine-five (95) per cent of dextrose and not more than eight-tenths (0.8) per cent of ash. The latter, crystallized with water of crystallization, is of two varieties—70 sugar, also known as brewers' sugar, contains not less than seventy (70) per cent of dextrose and not more than eight-tenths (0.8) per cent of ash; 80 sugar, climax or acme sugar, contains not less than eighty (80) per cent of dextrose and not more than one and one-half (1.5) per cent of ash.

The ash of all these products consists almost entirely of chlorids and sulphates.

2. Glucose, mixing glucose, confectioners' glucose, is a thick, sirupy colorless product made by incompletely hydrolizing starch, or a starch-containing substance, and decolorizing and evaporating the product. It varies in density from forty-one (41) to forty-five (45) degrees Baume at a temperature of 100° Fahr. (37.7° C.), and conforms in density, within these limits, to the degree Baume it is claimed to show, and for a density of forty-one (41) degrees Baume contains not more than twenty-one (21) per cent and for a density of forty-five (45) degrees not more than fourteen (14) per cent of water. It contains on a basis of forty-one (41) degrees Baume not more than one (1) per cent of ash, consisting chiefly of chlorids and sulphates.

(Here follow labels marked pages 708 to 728.)

2½ LBS. NET WEIGHT



TRADE MARK
B&B

W
"Kaffee"
• COFFEE

Copy of

EXHIBIT 131.

WEIGHT

NTEE
RUP
PURE
SOME
AINS
UT THE
ING
RN SYRUP.
NE SYRUP

TRADE MARK
REGISTERED



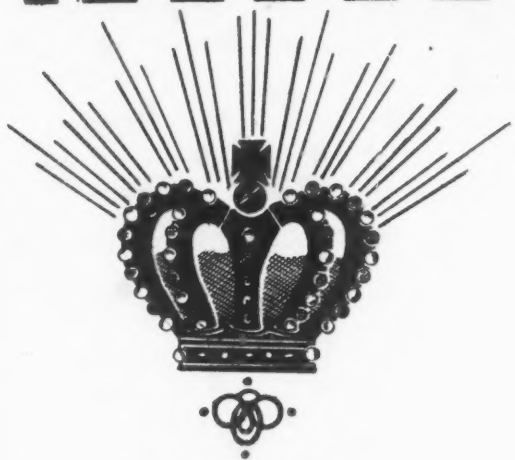
"Kairomel Brand"
• CORN • SYRUP •

FORTABLEUSE

2½ LBS. NET WEIGHT

PACKED AT
THE
CHICAGO
AND
DAVENPORT

FACTORIES
OF
CORN PRODUCTS CO.
CHICAGO.



COMPOUND
CORN SYRUP 90%



Copy of
EXHIBIT 132.

GOLDEN CROWN



CORN SYRUP
ILLINOIS SUGAR REFINING CO.
CHICAGO, U.S.A.

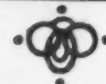
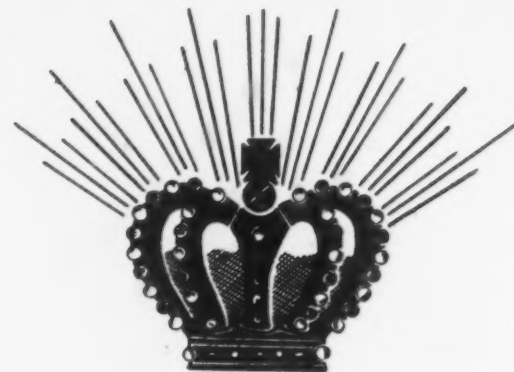
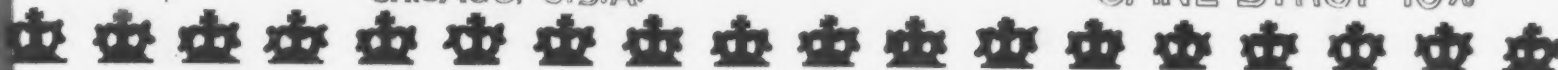


GOLDEN CROWN



CORN SYRUP

ILLINOIS SUGAR REFINING CO.
CHICAGO, U.S.A.



COMPOUND
CANE SYRUP 10%



Copy of
Exhibit 133.

710

CHOICE QUALITY
FULL WEIGHT



COMB
CORN SYR
CANE SYR

CORN SYRUP

ILLINOIS SUGAR REFINING CO.

CHICAGO U.S.A.

Copy of

EXHIBIT 134.



Universal

CORN SYRUP

ILLINOIS SUGAR REFINING CO.

CHICAGO U.S.A.

COMPOUND
CORN SYRUP 90%
CANE SYRUP 10%



COMPOUND
CORN SYRUP 90%

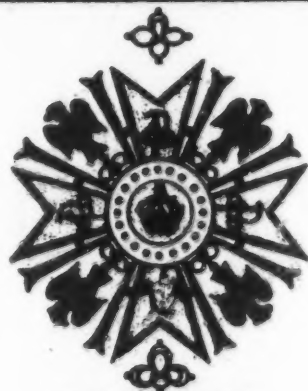


ILLINOIS SUGAR REFINING CO.
CHICAGO, U.S.A.



COMPOUND
CANE SYRUP 10%

Copy of
EXHIBIT 135.



DELICIOUS
WHOLESOME
PURE

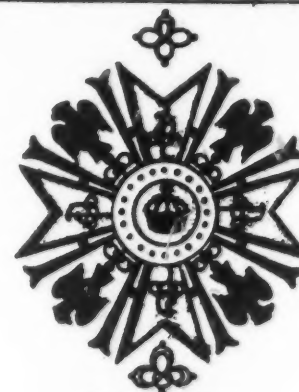


ROYAL



CORN SYRUP

DAVENPORT SYRUP REFINERY
DAVENPORT, IOWA.



CHOICE
QUALITY
FULL WEIGHT



COMPOUND
90% CORN
10% C^W

Copy of

EXHIBIT 136.

713



DELICIOUS
WHOLESOME
PURE



ROYAL

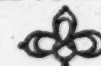


CORN SYRUP

DAVENPORT SYRUP REFINERY
DAVENPORT IOWA.



CHOICE
QUALITY
FULL WEIGHT



COMPOUND
90% CORN SYRUP
10% CANE SYRUP

Copy of
EXHIBIT 137.

714

GUARANTEED UNDER
THE FOOD & DRUGS
ACT, JUNE 30, 1906.
SERIAL NO. 311.

3 POUNDS

NET WEIGHT



REX CORN SYRUP,
WITH CANE FLAVOR, IS PREPARED
FROM 90% OF CORN SYRUP AND
10% OF REFINERS' SYRUP.



CORN SYRUP

WITH CANE FLAVOR
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA.

Copy of

EXHIBIT 138.



GUARANTEED TO COMPLY WITH THE
FOOD & DRUGS ACT, JUNE 30, 1906.
SERIAL NO. 311.

3 POUNDS NET WEIGHT

Santee
BRAND



THIS SYRUP IS PURE AND WHOLESOME
AND PREPARED FROM 90% CORN SYRUP
AND 10% REFINERS' SYRUP.

Copy of

EXHIBIT 139.

716

2 POUNDS NET WEIGHT



GUARANTEED TO COMPLY WITH
THE FOOD AND DRUGS ACT
JUNE 30, 1906. SERIAL NO. 311



ARGO BRAND CORN SYRUP

WITH CANE FLAVOR

CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA.



THIS SYRUP IS PURE AND WHOLESOME
AND PREPARED FROM 90% CORN
SYRUP AND 10% REFINERS' SYRUP.



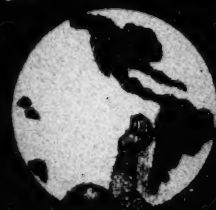
Copy of
EXHIBIT 140.



Copy of

EXHIBIT 141.

ATLAS



NET WEIGHT

GUARANTEED PURE
WITH THE FOOD AND DRUG
ACT, 1906
SER. 100-100

THIS SYRUP IS PURE AND
WHOLESOME AND PREPARED
FROM PURE CORN SYRUP AND
REFINED SUGAR

DAVENPORT
IOWA

CORN SYRUP

WITH CANE FLAVOR

Copy of

EXHIBIT 142.

719



10 Cents



10 Cents

COMPOUND
85 CORN SYRUP
15 CANE SYRUP

CORN PRODUCTS CO.
CHICAGO U.S.A.

720

Copy of

EXHIBIT 143.

90%
CORN SYRUP
10%
REFINERS'
SYRUP

REGISTERED TRADE MARK
CLOVER BRAND

CORN SYRUP
WITH
CANE FLAVOR

PACKED BY *Manufacturers*
CORN PRODUCTS REFINING CO.
CENTRAL OFFICES, NEW YORK, N. Y.

FOR
JOANNES BROS. Co.
GREEN BAY, WIS.

under
GUARANTEED ~~CORN PRODUCTS~~
~~REFINING CO.~~ TO COMPLY WITH THE
FOOD AND DRUGS ACT, JUNE 30, 1906.
REGISTERED UNDER SERIAL NO. 3042,311

Danvers, Iowa

Copy of

Exhibit 154

2 POUNDS NET WEIGHT

KARO
CORN SYRUP
WITH CANE FLAVOR
IS GUARANTEED BY THE
CORN PRODUCTS REFIN-
ING CO. TO COMPLY
WITH THE FOOD AND
DRUGS ACT, JUNE 30,
1906. REGISTERED
UNDER SERIAL
NO. 2317.

10Cents

Karo
(TRADE MARK REGISTERED)

CORN SYRUP

WITH CANE FLAVOR

KARO
CORN SYRUP
WITH CANE FLAVOR
IS PURE AND
WHOLESOME AND
IS PREPARED FROM
85% OF CORN SYRUP
AND 15% OF
REFINERS'
SYRUP.

10Cents

CORN PRODUCTS REFINING CO.

DAVENPORT, IOWA.

Copy of

EXHIBIT 155

722

U. S. SERIAL NO. 311.
GUARANTEED UNDER FOOD AND
DRUGS ACT, JUNE 30, 1906.



COMPOUND

2½ POUNDS

NET WEIGHT



10% REFINERS SYRUP

CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA

90% CORN SYRUP

Copy of
EXHIBIT 162.

723



Copy of
Exhibit 163

724

**90% CORN
SYRUP**

DIAMOND DRIPS

**10% REFINERS'
SYRUP**

2½ POUNDS

NET WEIGHT



MANUFACTURED BY
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA

CORN SYRUP
WITH GANE FLAVOR
PACKED EXPRESSLY FOR
JOHN HOFFMANN & SONS CO.
MILWAUKEE, WIS.

SERIAL NO. 311.
GUARANTEED UNDER THE
FOOD AND DRUGS ACT,
JUNE 30, 1906.

Copy of

EXHIBIT 184.

725



COMPOUND
DELICIOUS
WHOLESOME
PURE

90% CORN SYRUP

GUARANTEED UNDER THE FOOD
AND DRUGS ACT, JUNE 30, 1906
SERIAL NO. 312



ROYAL



ROYAL CORN SYRUP IS COM-
POSED OF THE FOLLOWING IN-
GREDIENTS AND NONE OTHER
CORN SYRUP AND REFINERS'
SYRUP - IT IS OF THE HIGHEST
QUALITY AND PREPARED AC-
CORDING TO U. S. STANDARDS.



CORN SYRUP

PACKED BY
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT IOWA



CANE FLAVORED
CHOICE
QUALITY

3 ~~2 1/2~~ ¹/₂ LBS NET WEIGHT
10% REFINERS' SYRUP

Copy of

EXHIBIT 185.

726

85
CORN SYRUP
 15%
CANE SYRUP
 2 1-2 Lbs.
 Net Weight.



Cupid

**Table
 SYRUP**

MANUFACTURED BY
 WARNER SUGAR REFG. CO.
 WAUKEGAN, ILL.

PACKED EXPRESSLY FOR
ROUNDY, PECKHAM & DEXTER CO.,
 MILWAUKEE, WIS.



*Copied
 Exhibit 167*



50 Cents

15%
CANE
SYRUP



CORN PRODUCTS Co.
CHICAGO, U.S.A.



85%
CORN
SYRUP

50 Cents

15% CANE SYRUP
85% CORN SYRUP

*Copy of
Exhibit 213*

728



THE
LIBRARY OF THE
CONGRESS

1912

729 & 730

EXHIBIT 144.

John Orr's Sons,
Wholesale Grocers.

STEUBENVILLE, OHIO, 1/12 '97.

Please quote prices on car loads and less, of Standard Corn Syrup and Flavored Corn Syrup. Name price delivered here. Please send us by mail samples of the grade usually sold here, which you quote.

898*

81/104*

Yours truly,

11c. less fgt.*

JOHN ORR'S SONS,
Per R.

EXHIBIT 145.

DETROIT, MICH., Jan. 15, 1897.

Messrs. Bradshaw & Wait, Chicago, Ill.

E 84/119*

GENTS: Please ship for us to C. T. Cook, Marshall, Mich., via M. C. R. R. 1 (one) Bbl. Corn Syrup, — oblige

Yours truly,

W. J. GOULD & CO.
A. H. BOZLEY.

731 & 732

EXHIBIT 146.

Office of E. Bierhaus & Sons,
Wholesale Grocers, Pork, Egg and Poultry Packers.

VINCENNES, IND., Jan. 22, '97.

Messrs. Bradshaw & Waite, Chicago, Ill.

GENTLEMEN: Wire us in the morning your very lowest price on one or two cars of Corn Syrup. We must have your bottom price. We have been offered Syrup from other refineries at 10 cts. per Gal. Could you not do any better for us? In case we give you an order direct, would you give us the advantage of the regular brokerage?

Awaiting your wire, we are

Yours truly,

10*

E. BIERHAUS & SONS.

[* In pencil in copy.]

EXHIBIT 147.

John J. Kerby,
Office, 50 Shelby Street.

DETROIT, MICH., Jan. 5th, 1897.

Messrs. Bradshaw & Waite, Chicago, Ill.

GENTLEMEN: Will you consider 10c. for corn syrup, freight prepaid or less freight to Detroit?

Messrs. Grones & Brehmer are in the market for a car, and the Edward Henkel Co. and Moran, Fitzsimons Co. would probably buy a car at this figure.

Yours truly,

JOHN J. KERBY.
Per E. O. B.

Dictated by J. J. K.

733

EXHIBIT 148.

Wh. Gro. Ct. 1.

DANVILLE, VA., Jan'y 12, 1897.

Messrs. Bradshaw & Wait:

Ship R. W. Larson & Co., South Boston, Va.

40 bbs. No. 19 Corn Syrup 14½ delivered.

Terms, —.

Ship at once and brand it H. W. Larson & Co., Honey Drips, So. Boston, Va.

Send nice barrels & ship quick So. Boston. Parties always want quick shipment on everything they buy.

L. T. PINGOR & CO.

(Exhibit 148. Edward H. Smith, Official Reporter.)

734 & 735

EXHIBIT 149.

Charles R. Hurd,
Merchandise Broker and Commission Merchant,
1525 and 1527 Market St.

DENVER, COLO., Jan. 19th, 1897.

Messrs. Bradshaw & Wait, Chicago, Ill.

DEAR SIR: Your letter of the 15th inst. is received.

Since I last wrote you Corn Syrup has been offered by Farrel & Co. at 8 cents on the River.

Yours truly,

C. R. HURD.

EXHIBIT 150.

J. M. Paver & Co.,
Merchandise Brokers.

3:15 P. M.

INDIANAPOLIS, IND., Jan. 27, 1897.

Mess. Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: We have been waiting for two or three days for friend Smith to return from Louisville and Cincinnati. We have the following offer from Geo. W. Stout.

One car load of corn syrup at 9c. delivered here. On receipt of this kindly wire us confirmation of same. While we know that Mr. Smith when here gave us a 10c. price we are compelled to make this offer to you and wait your decision. Let us know by wire without delay.

Yours truly,

J. M. PAVER & CO.

736

EXHIBIT 151.

J. M. Paver & Co.
Merchandise Brokers.

3:00 P. M.

INDIANAPOLIS, IND., Jan. 28, 1897.

Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: We have your day message reading as follows: "Decline any offer for corn syrup under ten cents" in reply to our letter of last night to you making this request. Of course we readily understand now since we have made some further inquiry the cause of this bidding. It appears that Hoyt & Co., of Chicago, are quoting to the trade Corn Syrup at 9½c. Our jobbers have been receiving reports from their salesmen for some time that Hoyt was doing this and hence our offer to you last night on the car load for Stout. We readily understand also that the freight to this point necessarily figures in the price, and there are some other things that figure in the cost of an article that possibly might be just as well unsaid as said. Hoping that we may be able to do some business with you in the near future, we remain,

Yours truly,

J. M. PAVER & CO.

737

EXHIBIT 152.

J. M. Paver & Co.,
Merchandise Brokers.

3:30 P. M.

INDIANAPOLIS IND., Jan. 28, 1897.

Mess. Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: Referring to our above letter we have just had an interview with Mr. Geo. W. Stout and he desires us to renew his offer on car load of Corn Syrup at 9½c. delivered here, including 30 Bbls. and 20 half Bbls. small car of 40 Bbls. On receipt of this kindly wire us your decision. We have been working hard on him today to get his ideas up to yours but it seems an impossibility to move him.

Awaiting your reply, we remain,

Yours truly,

J. M. PAVER & CO.

P. S.—Style of stencil enclosed.

EXHIBIT 153.

Welch & Eason,
Wholesale and Retail Dealers in Fine Groceries.

CHARLESTON, S. C., 11/11/99.

Mr. Jno. F. Bradshaw, Chicago, Ill.

DEAR SIR: We are in receipt of your favor of the 7th inst. quoting us Fancy Grade Light Color Corn Syrup at 18½c. in barrels, and \$1.70 per case of three pound cans, delivered here. We presume that these prices are based on carload rate of freight. We do not know that we could use a carload of it, as we have considerable stock on hand and the trade here is pretty well supplied. Kindly send us a sample and say whether you will sell us less than a carload and if so how many cases at your delivery price as quoted. We will take some of it subject to approval of sample and will write you or wire you immediately upon receipt of the above desired information, as to the quantity you can sell. Kindly let us know also what quantity a carload will contain.

738

Very truly yours,

WELCH & EASON.

739 *Exhibits Identified in Testimony of John W. Bradshaw, but Not Marked with Separate Exhibit Numbers.*

Letters from W. J. Gould & Co., Wholesale Grocers, Detroit, Mich., to Bradshaw & Wait, Chicago.

No. 1.

DETROIT, MICH., Jan'y 20th, 1897.

Messrs. Bradshaw — Wait, Chicago. E 84/131*

GENTLEMEN: You may ship for our account to L. A. Phelps, Caro, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

To Parsons & Holt, St. Charles, Mich., via M. C. R. R. 1 Bbl. Corn Syrup.

To J. W. Pew & Son, Montpelier, Ohio, via Wabash R. R. to Montpelier, Ohio, 1 bbl. Corn Syrup. Please stencil formula on bbl.

To M. E. Curtis, Bog Rapids, Mich., via Chicago & West. Michigan R. R. 1 Bbl. Corn Syrup and oblige

Very truly yours,

W. J. GOULD & CO.
O. H. B.

No. 2.

DETROIT, MICH., Jan'y 27th, 1897.

Messrs. Bradshaw & Wait, Chicago. E 84/139*

GENTLEMEN: Please ship for our account to Messrs. B. F. Brenneman & Son, Columbia City, Ind., via Wabash R. R. 5 Bbls. Corn Syrup.

Please brand this syrup "Rock Candy," there being no law in Indiana to prohibit it.

Prompt shipment of the above will greatly oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

[* In pencil in copy.]

740 & 741 *Exhibits Identified in Testimony of John W. Bradshaw,
but Not Marked with Separate Exhibit Numbers.*

No. 3.

DETROIT, MICH., Jan'y 23, 1897.

Messrs. Bradshaw & Wait, Chicago.

130*

84/131*

GENTLEMEN: You may ship for our account to Savage & Durfee,
Paulding, Ohio, 1 Bbl. Corn Syrup. Please stencil formula on Bbl.
Very truly yours,

E 84/33*

W. J. GOULD & CO.
A. H. B.

Via Wabash.

No. 4.

130*

84/131*

DETROIT, MICH., Jan'y 16th, 1897.

Messrs. Bradshaw & Wait, Chicago.

E 84/133*

GENTLEMEN: You may ship for our account to J. Jenks & Co.,
Sand Beach, Mich., Grand Trunk R. R. to Port Huron via F. &
P. M. R. R. to Sand Beach, 2 Bbls. Corn Syrup.

Also to I. Rezek, Port Austin, G. T. R. R. to Port Huron, via
F. & P. M. R. R. to Port Austin, 1 Bbl. Corn Syrup, and oblige
Very truly yours,

W. J. GOULD & CO.
A. B.

No. 5.

130*

DETROIT, MICH., Jan'y 16th, 1897.

Messrs. Bradshaw & Wait, Chicago.

56*
E/84/121* 542*

GENTLEMEN: Please ship for our account to Messrs. Davy & Co.,
Ewart, Mich., 2 Bbls. Corn Syrup, and oblige,

Very truly yours,
Very truly yours,

552*
W. J. GOULD & CO.
A. B.

[* In pencil in copy.]

42 & 743 Exhibits Identified in Testimony of John H. Bradshaw
but not Marked with Separate Exhibit Numbers.

No. 6.

130/84/106.†

DETROIT, MICH., *Jany. 8th*, 189-.
 Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Chadwick, Rans-
burg & Co., Pleasant Lake, Ind., via L. S. & M. S. R. R. 1 Bbl. Corn
Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.
542 562.†

E 84/121.†
C. & G. T.†

No. 7.

E 84/110.†

DETROIT, MICH., *Jany. 7th*, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to Jas. Lowry, Te-
cumseh, Mich., via L. S. & M. S. R. R. 1 Bbl. Corn Syrup, and
oblige

Very truly yours,

W. J. GOULD & CO.
A. H. B.

84/06.†

No. 8.

DETROIT, MICH., *Jany. 6th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Fred Schu-
macher, Petersburg, Mich. via L. S. & M. S. R. R. 1 Bbl. Corn Syrup.

Very truly yours,

W. J. GOULD & CO.,
Per CRUSOE.

E 84/110. 84/106.†

No. 9.

130. 84/101. 84/106.†

DETROIT, MICH., *Jany. 6th*, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account to B. R. Des Jardins,
Alpena, Mich., via M. C. R. R., 2 Bbls. Corn Syrup. Prompt ship-
ment will oblige.

Very truly yours,

W. J. GOULD & CO.

744 & 745 *Exhibits Identified in Testimony of John H. Bradshaw
but not Marked with Separate Exhibit Numbers.*

No. 10.

DETROIT, MICH., *Jany. 8th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to W. F. Ehlers, Detroit, Mich., 1 Bbl. Corn Syrup via Grand Trunk R. R. via Iml City, P. O. & N. R. R. to Deford.

Yours very truly,

W. J. GOULD & CO.

130/84/111. E 84/113.†

No. 11.

DETROIT, MICH., *Jany. 13th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for us to Amphlett, Sanderson & Co Ionia, Mich., 1 Bbl. Corn Syrup, and oblige

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/118.†

No. 12.

DETROIT, MICH., *Jany. 9th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to W. C. Walter Mason, Mich., 1 Bbl. Corn Syrup, via M. C. R. R. and oblige

Very truly yours,

W. J. GOULD & CO.

E. 84/113.†

No. 13.

DETROIT, MICH., *Jany. 11th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Smith & Co., Marine City, Mich. via G. T. R. R. to Port Huron, Mich.

1 Bbl. Corn Syrup.

Yours truly,

W. J. GOULD & CO.

E 84/113.†

746 *Exhibits Identified in Testimony of John H. Bradshaw, but not Marked with Separate Exhibit Numbers.*

No. 14.

DETROIT, MICH., Jany. 14th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to G. W. Kroll, Marcellus, Mich., via C. & G. T. R. R., $\frac{1}{2}$ Bbl. Corn Syrup.

To P. F. Stettiner, Cassopolis, Mich. via C. & G. T. R. R. 1 Bbl. Corn Syrup. Prompt shipment will oblige.

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/119.†

No. 15.

DETROIT, MICH., Jany. 29th, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: Please ship for our account to Grace Bros., Marshall, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

Yours truly,

W. J. GOULD & CO.
A. H. B.

E. 84/140.†

No. 16.

DETROIT, MICH., Jany. 27th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account via C. & G. T. R. R. to L. T. Clark, Climax, Mich., 1 Bbl. Corn Syrup.

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/139.†

747 & 748 *Exhibits Identified in Testimony of John H. Bradshaw, but not Marked with Separate Exhibit Numbers.*

No. 17.

130/84/133.†

DETROIT, MICH., Jany. 26th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to Dean & Eyster, Ionia, Mich., 1 Bbl. Corn Syrup.

To S. F. McKay, Battle Creek, Mich. via C. & G. T. R. R. 1 Bbl. Corn Syrup.

Prompt shipment will oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

E 84/138.†

No. 18.

130.†

DETROIT, MICH., Jany. 23rd, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account, via M. C. R. R. to Preston & Collins, Fostoria, Mich. 1 Bbl. Corn Syrup and oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

E 84/133.†

No. 19.

130.†

DETROIT, MICH., Jany. 19th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to J. D. Power Eaton Rapids, Mich., via M. C. R. R., ½ Bbl. Corn Syrup, and oblige

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/125.†

749 & 750 *Exhibits Identified in Testimony of John H. Bradshaw but not Marked with Separate Exhibit Numbers.*

130.†

No. 20.

DETROIT, MICH., Jany. 19th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to W. F. Ehlers, Detroit, Mich. Grand Trunk R. R. via Imlay City P. O. & N. to Detroit, 1 Bbl. Corn Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.
A. H.

E 84/125.†

No. 21.

130.†

DETROIT, MICH., *Jany.* 16th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account to Fred Lincoln & Son, Lapeer, Mich., via M. C. R. R., 1 Bbl. Corn Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.
A. B.

E 84/121. 552.†

No. 22.

130.†

DETROIT, MICH., *Jany.* 29th, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: Please ship for our account to the Michigan State Prison, Jackson, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/140.†

751

EXHIBIT 165.

In Amendment No. 7 to Tariff No. 127, Item No. 112, issued May 25, 1900, effective May 30, 1900, the following item appears:

"Glucose, Corn Syrup, Grape Sugar and Jelly, straight or mixed carloads, minimum weight 30,000 lbs."

In Tariff No. 153, issued March 30, 1901, effective April 6th, Item No. 34 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

By Tariff No. 168, issued October 23, 1902, effective Oct. 29, 1902, Item No. 43 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

Tariff No. 181, issued December 15, 1903, effective January 1, 1904, Item No. 40, reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

Tariff No. 206, issued December 4, 1905, effective December 15, 1905, Item No. 54, reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

Tariff No. 216, issued January 3, 1907, effective February 11 1907, Item No. 162 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 40,000 lbs."

Taken from Chicago & St. Paul Tariffs of Western Trunk lines.

752

EXHIBIT 168.

References Showing the Continuous Use of the Term Sirup to Designate Solutions of Sugar Made from Starch.

- 1813. Berard. Bull. Sec. d'Enc. XII, 63.
"Starch sugar and sirup."
- 1813. Bouriat. Bull. Sec. d'Enc. XII, 14 & XIII, 15, 17.
"Report on the Starch Sirups, etc. and potato sirup."
- 1816. Dubusson Brevats d'invention, Tome, 6, 151.
(Process for preparing malt sirup.)
- 1828. Otto. Allgemeine Handlings Zeitung, Nuremberg, p. 239.
"Preparation of Malt sirup."
- 1833. Ludersdorff. J. pr. Ch. XVII, 401
"Sirup by action of malt or sulphuric acid on starch."
- 1834. Dumas, J. pr. Ch. I, 78.
"A sample of starch sirup laid before French Academy."
- 1834. Fichtner, Jahrb. Kais, Koenig. Polyt. Inst. Vien.
Vol. 15, 245.
"Preparation of Potato Syrup."
- 1845. Balling. Encycl. Zeits. d. Gewerbwesens, 1145.
"On Potato Syrup."
- 1850. Soubeiran. J. Pharm. (3) XVIII, 328.
"Detection of Starch Sirup."
- 1851. "Knapp, Ronalds, Richardson. Chemical Technology.
Chemistry applied to arts and manufactures.
London, Vol. 3.
"Sirup of gum" made by action of acids or diastase (malt)
on starch," p. 241.
Solutions of starch sugar spoken of as sirup, pp. 251, 253.
- 1854. "The Mechanic" (American) p. 288.
"Sirup from Potatoes."
- 1855. Payen. Precia de Chinie Industrielle, Paris.
Constantly speaks of glucose in solution or—

753

EXHIBIT 169.

C. F. Chandler's Report.

Liquid form as "sirup" gives names:

"Sirup de focule (starch).

"Sirup de ble (grain).

"Sirup imponderable".

1855. Chevalier. Dictionnaire des Alterations et Falsifications des Substances Alimentaires, Paris.
"Sirop de glucose, sirop glucoses".
"Sirop de fécule, sirop de ble".
"Sirop de froment (wheat)".
1865. Dullo. Centrbl. 1024.
"Preparation of starch syrup".
1870. Bruno Kerl. Repertorium der technische. Literatur, 1860-1873, p. 1214.
Mentions "4th General Meeting of the Association of Starch, Starch syrup, and Starch Sugar manufacturers of Germany at Berlin, February 11, 1870".
1871. C. Kroethe, Dingl. Pol. J. 200, p. 139.
"Manufacture of starch syrup and starch sugar".
1872. Rudolf Weber, Wagner's Jahrs. 18,532.
"Lecture on Starch Sugar and Starch Syrup".
1876. Anthon. Scientific American, 34, 342.
"Dextrin in different kinds of commercial starch sirups".
1878. Anthon. Wagner's Jahrs.
"Experiments on improving poorer kinds of Starch Syrup".
1881. Cassamajor. J. Am. Chem. Soc. Vol. II, page 429.
"Detection of starch syrup in sugar house molasses".
1881. L. von Wagner's "Starch, Glucose, Starch Sugar and Dextrin", Philadelphia.
"Starch Syrup".
"Syrup of Glucose".

754

EXHIBIT 170.

C. F. Chandler's Report.

- "Glucose Syrup".
- "Dextrin Syrup".
- "Capillar Syrup".
- "Syrup Imponderable".
1885. Sieben. J. Soc. Chem. Industry. London 1885, Vol. V. page 411.
Composition of starch sugar, syrup, etc.
1888. Newland. Handbook for Planters & Refiners, London.
"Starch Syrup".
"Imponderable Syrup".
1889. Emile Bonant. Nouveau Dictionnaire der Chimie, Paris. pages 471-472.
"Glucose".
"Sirop".
"Sirop Imponderable".
"Sirop de ble".
"Sirop de fécule".
1890. E. O. Von Lippmann. Geschichte des Zuckers.
"Capillar Syrup".
"Syrup Imponderable".

1891. Samuel B. Sadtler. Handbook of Industrial Organic Chemistry. Philadelphia pp. 167-169.
Speaks of maltose as syrup or crystalline. Mentions syrup made from corn starch by Brussels Maltose Company. Says liquid glucose is known in France as "Sirop Cristal".
1892. Damer & Rung. Chemisches Handwörterbuch. 2nd edition, Berlin.
Defines syrup as a "thick sugar solution."
Mentions several kinds of syrup, including starch syrup.
1893. J. Koenig. Die Menschlichen Nahrung, und Genussmittel, Berlin, Vol. II, page 717.
Analysis of "Starch sugar syrup"; uses the term "Krystall Syrup".
1894. Stone & Dixon. J. Soc. Chem. Ind. p. 178.
"Characteristics of glucose syrups".

C. F. Chandler's Report.

1896. Dr. O. Dammer. Handbuch der Chemischen technologie, Stuttgart, Vol. III "Preparation of starch syrup". Describes "Kapillar syrup" which is thin: "Syrup imponderable" which is thick. Speaks of pleasant, sweet tasting syrup" now made in America from corn.
Speaks of malt syrup.
1896. Dr. O. Saare. Report on the Starch Industry and Starch Manufacturers of the United States, Berlin, page 13.
Disbusses "starch sugar" and "syrup" and again on page 110 has a separate chapter on starch syrup and starch sugar. Throughout the work applies the word "syrup" to solutions of starch sugar.
1898. Alfred H. Allen. Commercial Organic Analysis, London & Philadelphia.
Speaking of glucose says the term is restricted to syrup preparations. States that the following grades are recognized:
"Glucose".
"Mixing Glucose".
"Mixing syrup".
"Corn syrup".
1899. U. S. Dispensatory, page 1175.
Speaks of solutions of glucose as syrup.
1900. J. Koenig. J. Soc. Chem. Ind. page 453.
"Starch Syrup in the manufacture of food stuffs".
1901. Dr. Wilhelm Barsch. Die Fabrikation von Stark-zucker, page 200.
Speaks of "potato syrup" and "starch syrup".
1904. Albert E. Lesch, Chemist of the State Board of Health of Massachusetts. "Food Inspection and Analysis" page 470.
"Commercial glucose, otherwise known as mixing syrup, crystal syrup, and starch or corn syrup".

1904. Prof. von Lippman. Die Chemie der Zucker-arten. Braunschweig.
Calls solutions of starch sugar "starch syrup".

756

EXHIBIT 172.

C. F. Chandler's Report.

1905. Prof. Henry Leffman. Select Methods in Food Analysis. page 125.
"Glucose is often termed corn syrup".
1905. Thorp's Dictionary of Applied Chemistry, Vol. I, page 653.
Speaking of starch sugar "In America green maize starch is the chief material" hence the name corn sugar.
1905. Von Raumer. Zeit. f. Angewandte Chemie, Berlin. page 1953.
Article on "Starch Syrup".
1906. H. Luerig. Zeit. f. Angewandte Chemie, Berlin. page 290.
Article on "Starch Syrup".
1906. Matthes & Mueller. Zeit. f. Angewandte Chemie, Berlin, page 1864.
Article on "Starch Syrup".
1906. Richard Meyer. Jahrbuch der Chemie, Braunschweig. page 375 and 376.
"Starch Syrup".
1907. J. Varges. Nahrungs Mittle Chemie, Leipzig, page 234.
States that grape or starch sugar is made from potatoes, rice, and corn, and that the liquid product is called starch syrup or kapillar syrup.
1907. Prof. Dr. H. Ost. Lehrbuch der Chemischen Technologie, Hanover, page 458.
States that Germany made annually from 1901 to 1904 five hundred and fifty-nine thousand hundred-weight of starch syrup.
Page 469—states that syrup is made in Germany exclusively from potatoes; in America from corn.

757

EXHIBIT 173.

NEW YORK, N. Y., Dec. 18, 1907.

It is my opinion that the word "syrup" is not a technical one, but of general significance. As such it is usually understood to mean a thick, sweet liquid. Frequently, it is applied to any liquid of Syrupy consistence, totally irrespective of whether the liquid is sweet or not. Laymen would distinguish between syrups mainly by outward physical appearance and by taste, and to them there probably would seem as great a difference between a heavy, dark-colored molasses and maple syrup as between the same molasses and starch syrup. The designation "Corn Syrup" therefore, for the thick, sweet liquid obtained by the action of acids upon corn starch is in no sense

a misnomer. It conveys a perfectly truthful meaning—that of a thick, sweet liquid, produced in some way from corn, and it would be so understood by the general public. The word “syrup” is a general term used to indicate certain prominent physical properties, and to attempt to define it on a basis of chemical composition appears to me as inadvisable as it is likely to prove difficult.

(Signed)

MARSTON T. BOGERT.

758

EXHIBIT 174.

CHICAGO, *December 21, 1907.*

Endorsement of Dr. Walter S. Haines, Professor of Chemistry, Materia Medica and Toxicology, Rush Medical College and University of Chicago.

“Both by common usage and by dictionary authority the word “syrup” is properly applicable to a thick solution of glucose, and since the latter is invariably made from corn in this country, the term “corn syrup” with us is literally descriptive and entirely appropriate”.

759

EXHIBIT 175.

In my opinion the word syrup means a thick, sweet solution of sugar or sugars, and properly can not be confined to solutions of cane sugar.

The name corn syrup seems to me an appropriate one for the syrup made from corn-starch, and in no way misleading.

I give these opinions with some hesitation, as I am in no way an expert on the subject of sugars.

(Signed)

CHARLES LORING JACKSON.

Harvard University, December 23rd, 1907.

760

EXHIBIT 176.

UNIVERSITY OF VIRGINIA,

CHARLOTTESVILLE, VA., *Dec. 23, 1907.*

The word Syrup is generally applied to any watery solution of viscid consistence and sweet taste, whatever may be the particular saccharine substance or substances to which this taste is due. This meaning of the term is sanctioned by Scientific, commercial and popular usage at present and for at least a century past. The word corn is in the United States generally understood to mean the grains of “Indian corn” or “Maize”. To designate as “Corn Syrup” the thick, sweet liquid sold under that name for domestic use as food, and made from the starch of maize, appears to be quite legitimate and correct, and entirely free from any tendency to mislead. To refuse to sanction such use of the term would imply a claim to arbitrarily

make a change in the English language as currently spoken and written in this country.

(Signed)

J. W. MALLET,
Professor of Chemistry.

761

EXHIBIT 177.

GEORGE WASHINGTON UNIVERSITY,
WASHINGTON, Dec. 21, 1907.

The word "syrup" is a generic term which has long been generally applied to a variety of thick liquids possessing a sweet taste and it would be improper and misleading to restrict its use to a single composition of matter.

Corn syrup is one among several syrups which have long been well known and used, and the name "Corn Syrup" as applied to the thick sweet liquid product obtained by the action of acids on corn starch, is readily understood and conveys a definite and familiar idea to the general public.

(Signed)

CHARLES E. MUNROE,
Professor of Chemistry.

762 & 763

EXHIBIT 178.

Copy of Letter Issued by Prof. Samuel P. Sadtler, Ph D., LL. D.

PHILADELPHIA, Dec. 19, 1907.

The Corn Products Refining Co., 26 Broadway, New York.

GENTLEMEN: It seems to me that the term "corn syrup" as applied to the liquid product of the hydrolysis of corn starch is not only a proper term, but the best and most exact term from a chemical point of view.

It is undoubtedly a syrup from the point of view of its consistency as a liquid, and it contains in solution at least two varieties of sugars, viz: maltose and dextrose, so that as an aqueous solution of these sugars it is properly a syrup.

By analogy with the use of the term "Kartoffeln Sirup" or potato syrup, used almost exclusively in Germany to designate the corresponding product made from potato starch, it should be called "Corn Syrup." No other term could be applied with the same chemical accuracy or appropriateness. While "Glucose Syrup" has been used as a chemical designation it is not accurate as the analysis of the product will show it to be a mixture of a sugar of the $C_6H_{12}O_6$ class, one of the $C_{12}H_{22}O_{11}$ class and dextrine, a related body.

I therefore believe that the term "Corn Syrup" is the best descriptive term, and at the same time the one least subject to misconception from the chemical point of view.

I remain, yours very truly,
(Signed)

SAM. P. SADTLER.

Dic. S. P. S.

I hereby certify that this is a correct and true copy of the original.

W. M. BURKHARTH.

764

EXHIBIT 179.

In my opinion the word "syrup" conveys to the general public the familiar idea of a thick, sweet liquid containing a considerable *idea of a thick, sweet liquid containing a considerable* proportion of a sugar or mixture of sugars. I therefore believe that the term "Corn Syrup" is properly applied to strong solutions of the sugar or sugars obtained by the action of acids upon corn or corn starch.

(Signed)

HENRY C. SHERMAN.

I hereby certify that the above is a true and correct copy of the original.

Sworn to before me this 21st day of December, 1907.

[SEAL.]

FRANKLYN DOE,

Notary Public, Kings County.

Certificate filed in New York County.

765

EXHIBIT 180.

Copy of Letter Issued by Prof. Edgar F. Smith, of the University of Pennsylvania.

I feel very sure that a water solution of sugar made from starch may be called a syrup, and that "Corn Syrup" is an appropriate name for such a solution of the sugar made from corn starch.

(Signed)

EDGAR F. SMITH.

12-19-'07.

I hereby certify that this is a correct and true copy of the original.

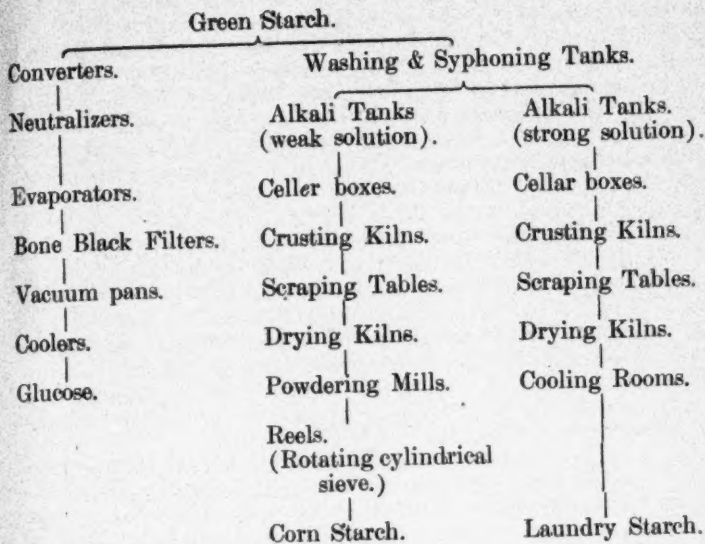
WALTER M. BURKHARTH,

Stenographer.

766

EXHIBIT 214.

Corn.



Circuit Court, Dane County. Filed Jan. 5, 1909. Lawrence O. Larson, Clerk.

767 EXHIBIT #215. Edward H. Smith, Official Reporter.

Page 18.

The Pure Food Laws of the State of Iowa, Effective July 4, 1907.

H. R. Wright, Food and Dairy Commissioner, Des Moines, Iowa.

12.

Des Moines: Emory H. English, State Printer, 1907.

Pure Food Law.

SECTION 1. The State Dairy Commissioner shall, by this act, become the State Food and Dairy Commissioner, and shall, on and after taking effect of this act, have all the powers, compensations and allowances, and shall be charged with all the duties now imposed by law upon the State Dairy Commissioner.

SEC. 2. In addition to his powers and duties as provided in Sec-

tion 1 hereof, the Commissioner shall be charged with the duty of carrying into effect the provision of this act and shall have an official seal. He may, with the approval of the Executive Council, appoint such assistants as he may deem necessary, who may exercise the powers now provided by law in the case of milk inspectors together with those conferred by this act. They shall be paid not to exceed five dollars a day when on duty besides their actual and necessary traveling expenses when traveling under orders. Their accounts shall be itemized and sworn to, and, when approved by the Commissioner and the Executive Council, shall be paid by warrant of the Auditor upon the Treasurer out of the sum hereinafter appropriated for carrying out the provisions of this act. The Commissioner shall receive five hundred dollars annually in addition to the salary now received by the State Dairy Commissioner.

SEC. 3. The Commissioner shall, with the approval of the Executive Council, appoint a chemist, who shall be the official chemist under this act, who shall devote his whole time to the duties of such office. He shall receive a salary of two thousand dollars per year, to be paid in the same manner as the salaries of other state officers. He shall make all the examinations necessary in enforcing the provisions of this act, and shall be furnished necessary laboratory, apparatus, supplies and chemicals, to be paid for in the same manner as the accounts of assistants.

SEC. 4. The Commissioner shall, with the approval of the Executive Council make all necessary rules and regulations for carrying out the provisions of this act, under which the Commissioner shall procure from time to time or when ever he has occasion to believe any of its provisions are being violated or cause to be procured for examination chemically, microscopically or otherwise, samples of food shipped into this state or offered for sale in this state. The chemist making the examination shall certify the results of his work to the Commissioner.

SEC. 5. If it shall appear from any such examination that any of the provisions of this act have been violated, the Commissioner shall at once certify the facts to the proper county attorney, with a copy of the results of the analysis duly authenticated by the analyst under oath. It shall be the duty of every county attorney to whom the Commissioner or his assistants shall report any violation of this act, to cause proceedings to be commenced and prosecuted without delay for the fines and penalties in such case provided. An attorney may be appointed by the Governor when he deems advisable to prosecute such cases, but in no case except where the county attorney has first refused to act.

SEC. 6. No person, firm or corporation, by himself, officer, servant or agent, or as the officer, servant or agent of any other person, firm or corporation shall manufacture or introduce into the state or solicit or take orders for delivery, or sell, exchange, deliver or have in his possession with the intent to sell, exchange or expose or offer for sale or exchange, any article of food which is adulterated or misbranded, within the meaning of this act. Provided that none of the penalties set forth in this act shall be imposed upon any com-

mon carrier for introducing into the state, or having in its possession, any adulterated or misbranded articles of food, where the same were received by said carrier for transportation in the ordinary course of its business and without actual knowledge of the adulteration or misbranding thereof. Provided, that any manufacturer, wholesaler or jobber may keep goods specifically set apart in his stock for sale in other states, which might otherwise be in violation of the provisions of this act.

SEC. 7. The word "Commissioner," whenever used in this act, shall be taken to mean the State Food and Dairy Commissioner herein provided for. The word "food," as herein used, shall include all articles used for food, drink, confectionery or condiment, by man or domestic animals, whether simple, mixed or compound. The term "Misbranded," as used herein shall apply to all articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food product which is falsely branded as to the state, territory or country in which it is manufactured or produced, or which bears any statement of the weight or measure unless the same be a correct statement of the net weight or measure of the contents.

SEC. 8. For the purpose of this act, an article of food shall be deemed to be adulterated:

First. If any substance or substances has or have been mixed and packed with it so as to reduce or lower or injuriously affect its quality, strength or purity.

Second. If any substance or substances has or have been substituted wholly or in part for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted.

Fourth. If it be an imitation of, or offered for sale, under the specific name of another article, or if it does not conform to the standards established by law.

Fifth. If it be mixed, colored, powdered or stained, in a manner whereby damage or inferiority is concealed.

Sixth. If it contains any added poisonous ingredient, or any ingredient which may render such article injurious to health, or if it contains saccharine or formaldehyde.

Seventh. If it be labeled or branded so as to deceive, or mislead the purchaser, or purport to be a foreign product when not so.

Eighth. If it consists of the whole or any part of a diseased, filthy, decomposed or putrid animal or vegetable substance or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal or one that has died otherwise than by slaughter; provided, that an article of food which does not contain any added poisonous or deleterious ingredient shall not be deemed to be adulterated in the following cases:

1. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names and not included in definition fourth of this

section; provided, that candies and chocolates shall be deemed to be adulterated if they contain terra alba, barytes, talc, chrome yellow, or other mineral substances, or poisonous colors or flavors, or other ingredients deleterious or detrimental to health; provided, that vinegar shall be deemed to be adulterated if it contains any added coloring matter; provided, that in case of baking powders, each can or package shall be plainly labeled so as to show the name each and every ingredient contained therein.

2. In the case of articles labeled, branded or tagged so as to plainly indicate that they are mixtures, compounds, combinations, imitations or blends, provided that the same shall be labeled, branded or tagged, so as to show the exact character and the name and quantity or proportion of each constituent thereof; and provided further, that nothing in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome ingredients to disclose their trade formulas, except in so far as the provisions of this act may require to secure freedom from adulteration or imitation.

SEC. 9. Labels required by this act shall be distinctly printed in the English language in legible type no smaller than eight point heavy gothic caps and shall give, in continuous list with no intervening printed or descriptive matter, the true and correct names of all the constituents of such mixture, compound, combination, imitation or blend, and if artificially colored or preserved, the name of each and every such added substance shall be plainly stated on the label. Such label shall be placed upon the outside of the package and shall contain the name and address of the manufacturer, packer or dealer. There shall be such a contrast between the color of the label and the color of the ink used in printing the label as heretofore provided, that the label shall be easily and plainly legible.

SEC. 10. Any person who manufactures or exposes for sale, or delivers to a purchaser any article or food, shall furnish, within business hours and upon payment and tender of the selling price a sample of such food to any person duly authorized by the Commissioner to receive the same and who shall apply to such vendor, or person delivering to a purchaser, such article of food for such sample for such use in sufficient quantity for the analysis of any such article or articles in his possession. In the presence of such person and an agent of the Commissioner, if so desired by either party, said sample shall be divided into three parts, and each part shall be sealed with the seal of the Commissioner. One part shall be left with the dealer, one delivered to the Commissioner, and one deposited with the county attorney for the county in which the sample is taken. The having in possession by any person who manufactures or exposes for sale, any adulterated or misbranded food, within the meaning of this act, shall be prima facie evidence of having in possession with intent to sell in violation of its provisions.

SEC. 11. Any person, firm, corporation, or agent thereof, who refuses to comply, on demand, with any of the requirements of this act or who shall violate any of its provisions, or who shall obstruct or hinder the Commissioner, or any of his assistants, in the discharge

of any duty imposed by this act, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by fine not exceeding one hundred dollars.

SEC. 12. The Commissioner shall, from time to time, with the approval of the Executive Council, issue a printed bulletin, showing the results of inspections, analyses, and prosecutions undertaken under this act, together with such general information as may be deemed suitable. Such bulletins shall be printed in such numbers as may be directed by the Executive Council, and shall be issued to the newspapers of the state and to all interested persons.

SEC. 13. For the purpose of enabling the Commissioner to enforce the provisions of this act, for the compensation and expenses of assistants and experts, for necessary traveling and miscellaneous expenses, and for all other expenses herein provided, the sum of fifteen thousand dollars (\$15,000) annually, or so much thereof as may be necessary, is hereby appropriated from the treasury not otherwise appropriated.

SEC. 14. All goods purchased or received by either wholesale or retail dealers of this state prior to July first, nineteen hundred and six (1906), shall be exempt from the provisions of this act to July first, nineteen hundred and seven (1907), except that canned corn so purchased or received shall be exempt from the provisions of this act to January first, nineteen hundred and eight (1908).

SEC. 15. Upon the prosecution of a corporation for violations of the provisions of this act, or of section four thousand nine hundred and eighty-nine (4989) of the Code, and information filed before a Justice of the Peace having jurisdiction, the said Justice of the Peace shall forthwith issue notice to the corporation which shall substantially notify the defendant of the charges contained in the information and that it must forthwith appear and answer the same, which notice may be served by any peace officer in any county of the state or any officer or agent of the defendant corporation by reading the same to him and leaving with him a copy thereof; said notice shall be returned to the Justice of the Peace without delay with proper return of its service, and from and after two days from the time of making such service the defendant corporation shall be considered to be in court, and all further proceedings shall be the same as against an individual defendant.

SEC. 16. Section four thousand nine hundred and eighty-six (4986) of the Code is hereby amended by striking out in the second line thereof the words and characters "food, drink or," and in the third line thereof the words and characters "food, drink or," and by striking out all after the word "same" in the fourteenth line of said section, and by changing the semicolon after the word "same" to a period.

SEC. 17. Sections four thousand nine hundred and eighty-two (4982), four thousand nine hundred and eighty-four (4984), four thousand nine hundred and eighty-seven (4987), four thousand nine hundred and ninety-three (4993), four thousand nine hundred and ninety-four (4994), four thousand nine hundred and ninety-five (4995), four thousand nine hundred and ninety-six

(4996), four thousand nine hundred and ninety-seven (4997) and four thousand nine hundred and ninety-eight (4998) of the Code, and sections four thousand nine hundred and eighty-four "a" (4984-a), and four thousand nine hundred and eighty-four "b" (4984-b), as they appear in the Supplement to the Code are hereby repealed.

SEC. 18. For the purposes of this act, the following standards are hereby established:

Flavoring Extracts.

1. A flavoring extract is a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and conforms in name to the plant used in its preparation.

2. Almond extract is the flavoring extract prepared from oil of bitter almonds, free from hydrocyanic acid, and contains not less than one (1) per cent by volume of oil of bitter almonds.

3. Anise extract is the flavoring extract prepared from oil of anise, and contains not less than three (3) per cent by volume of oil of anise.

4. Celery seed extract is the flavoring extract prepared from celery seed or the oil of celery seed, or both, and contains not less than three-tenths (0.3) per cent by volume of oil of celery seed.

5. Cassia extract is the flavoring extract prepared from oil of cassia and contains not less than two (2) per cent by volume of oil of cassia.

6. Cinnamon extract is the flavoring extract prepared from oil of cinnamon, and contains not less than two (2) per cent by volume of oil of cinnamon.

7. Clove extract is the flavoring extract prepared from oil of cloves, and contains not less than two (2) per cent by volume of oil of cloves.

8. Ginger extract is the flavoring extract prepared from ginger and contains in each one hundred (100) cubic centimeters, the alcohol-soluble matters from not less than twenty (20) grams of ginger, ginger.

9. Lemon extract is the flavoring extract prepared from oil of lemon, or from lemon peel, or both, and contains not less than five (5) per cent. by volume of oil of lemon.

10. Terpeneless extract of lemon is the flavoring extract prepared by shaking oil of lemon with dilute alcohol, or by dissolving terpeneless oil of lemon in dilute alcohol, and contains not less than two-tenths (.2) per cent. by weight of citral derived from oil of lemon.

11. Nutmeg extract is the flavoring extract prepared from oil of nutmeg and contains not less than two (2) per cent. by volume of oil of nutmeg.

12. Orange extract is the flavoring extract prepared from oil of orange, or from orange peel, or both, and contains not less than five (5) per cent. by volume of oil of orange.

13. Terpeneless extract of orange is the flavoring extract prepared

by shaking oil of orange with dilute alcohol, or by dissolving terpeneless oil of orange in dilute alcohol, and corresponds in flavoring strength to orange extract.

14. Peppermint extract is the flavoring extract prepared from oil of peppermint, or from peppermint, or both, and contains not less than three (3) per cent. by volume of oil of peppermint.

15. Rose extract is the flavoring extract prepared from otto of roses, with or without red rose petals, and contains not less than four-tenths (0.4) per cent. by volume of otto of roses.

16. Savory extract is the flavoring extract prepared from oil of savory, or from savory, or both, and contains not less than thirty-five hundredths (0.35) per cent. by volume of oil of savory.

17. Spearmint extract is the flavoring extract prepared from oil of spearmint, or from spearmint, or both, and contains not less than three (3) per cent. by volume of oil of spearmint.

18. Star anise extract is the flavoring extract prepared from oil of star anise, and contains not less than three (3) per cent. by volume of oil of star anise.

19. Sweet basil extract is the flavoring extract prepared from oil of sweet basil, or from sweet basil, or both, and contains not less than one-tenth (0.1) per cent. by volume of oil of sweet basil.

20. Sweet marjoram extract, marjoran extract, is the flavoring extract prepared from the oil of marjoram, or from marjoram, or both, and contains not less than one (1) per cent. by volume of oil of marjoram.

21. Thyme extract is the flavoring extract prepared from oil of thyme, or from thyme, or both, and contains not less than two-tenths (0.2) per cent. by volume of oil of thyme.

22. Tonka extract is the flavoring extract from tonka bean, with or without sugar or glycerin, and contains not less than one-tenth (0.1) per cent. by weight of coumarin extracted from the tonka bean, together with a corresponding proportion of the other soluble matters thereof.

23. Vanilla extract is the flavoring extract prepared from vanilla bean, with or without sugar or glycerin, and contains in one hundred (100) cubic centimeters the soluble matters from not less than ten (10) grams of the vanilla bean, and contains not less than thirty (30) per cent. by volume of absolute ethyl alcohol.

24. Wintergreen extract is the flavoring extract prepared from oil of wintergreen, and contains not less than three (3) per cent. by volume of oil of wintergreen.

Vinegar.

1. Vinegar, cider vinegar, apple vinegar, is the product made by the alcoholic and subsequent acetous fermentations of the juice of apples, is levorotatory, and contains not less than four (4) grams of acetic acid, not less than one and six-tenths (1.6) grams of apple solids, of which not more than fifty (50) per cent are reducing sugars, and not less than twenty-five hundredths (0.25) gram of apple ash in one hundred (100) cubic centimeters (20°C.); and the water-soluble ash from one hundred (100) cubic centimeters (20°C.) of

the vinegar contains not less than ten (10) milligrams of phosphoric acid (P205) and requires not less than thirty (30) cubic centimeters of decinormal acid to neutralize its alkalinity.

2. Wine vinegar, grape vinegar, is the product made by the alcoholic and subsequent acetous fermentations of the juice of grapes and contains, in one hundred cubic centimeters (20°C.), not less than four (4) grams of acetic acid, not less than one (1.0) gram of grape solids, and not less than thirteen hundredths (0.13) gram of grape ash.

3. Malt vinegar is the product made by the alcoholic and subsequent acetous fermentations, without distillation, of an infusion of barley malt or cereals whose starch has been converted by malt, is dextrorotatory, and contains, in one hundred (100) cubic centimeters (20°C.), not less than four (4) grams of acetic acid, not less than two (2) grams of solids, and not less than two-tenths (0.2) gram of ash; and the water-soluble ash from one hundred (100) cubic centimeters (20°C.) of the vinegar contains not less than nine (9) milligrams of phosphoric acid (P205), and requires not less than four (4) cubic centimeters of decinormal acid to neutralize its alkalinity.

4. Sugar vinegar is the product made by the alcoholic and subsequent acetous fermentations of solutions of sugar, sirup, molasses, or refiners' sirup, and contains in one hundred (100) cubic centimeters (20°C.), not less than four (4) grams of acetic acid.

5. Glucose vinegar is the product made by the alcoholic and subsequent acetous fermentations of solutions of starch sugar or glucose, is dextro-rotatory, and contains, in one hundred (100) cubic centimeters (20°C.), not less than four (4) grams of acetic acid.

6. Spirit vinegar, distilled vinegar, grain vinegar, is the product made by the acetous fermentations of dilute distilled alcohol, and contains, in one hundred (100) cubic centimeters (20°C.), not less than four (4) grams of acetic acid.

Butter.

1. Butter shall contain not less than eighty (80) per cent by weight of butterfat.

Notes.

Relation of National and State Law.

The National Food Law is one of great importance, but is not apt to be violated by retailers. It relates wholly to interstate commerce. The goods which the retailer sells are never, while in his hands, articles of interstate commerce and hence, whether the goods are in accordance with the National law or not, the retailer will not violate that law by selling them in this state. A great many manufacturers have been very willing to guarantee their goods under the National law but not under the state law, and in some cases they have assured the dealers that they need pay no attention to the operation of the state law. Such a guaranty is of no value in the way of protecting the Iowa dealer from prosecutions. It is here pointed

out that the State law can not touch the shipment or sale of goods across the State line, and that, for this reason, the manufacturer without the State is perfectly safe, so far as prosecutions are concerned, in sending into this State goods that do not comply with the Iowa law. It is plain that the retailer is the one who will be subject to prosecutions if the goods he sells do not comply with the State law. The two laws are quite different in their labeling provisions, and goods sold in this State must bear the labels required by the State law. The two laws are nearly alike in regard to prohibitions of ingredients such as chemical preservatives, harmful colors and flavors, and similar adulterations which are prohibited by both laws; hence, articles of food guaranteed under the National law in this particular will probably also comply with the State law. But upon goods which, to be legally sold, require specific form of labels, the provisions of the two laws are different and the dealer who buys to sell again inside this State can not rely upon the national guaranty for his labeling under the Iowa statute.

No Labels Required on Pure Foods.

It must be borne in mind that no restrictions are placed by the food law upon the sale of any goods except "adulterated" or "misbranded" articles. The sale of "misbranded" goods is prohibited. The sale of "adulterated" goods is also prohibited, except those "mixtures, compounds, combinations, imitations and blends," which may be sold when properly labeled. The food law affects "foods, drinks, confectionery and condiments," all of which are included in the definition of "food."

Analyses of Samples.

This department can not undertake the analyses of samples sent in by manufacturers, dealers and purchasers, but will properly investigate complaints in regard to any foods alleged to be adulterated. We are obliged to refuse the numerous requests for analysis of foods, whether with or without payment for the same, for the reason that the law specifically prohibits anything of the kind.

Retailers Must Label Packages.

Packages of adulterated goods sold in bulk, such as adulterated spices, substitutes for lard, mixed syrups, must be properly labeled by the retailer. The design of the law is that the last purchaser of the goods shall be fully informed in regard to their character.

"Misbranded"—Section 7.

An article of food is misbranded if the package or label bear any false or misleading statement, design or device in regard to the substance contained in the package, or the ingredients of the article, or in regard to the State or country in which it is manufactured or produced. This provision is chiefly in relation to the main label or title under which the article is sold.

If any weight or measure is stated, the net weight or measure must be given. This will not prevent statement of gross weight, if the net weight is also given.

"Adulterated Foods"—Section 8.

The sale of certain classes of adulterated foods is altogether prohibited. They are: Foods which are "mixed, colored, powdered or stained, whereby damage or inferiority is concealed;" those that contain "any added poisonous ingredient, or any ingredient which may render such article injurious to health, or * * * contain saccharine or formaldehyde;" those that are "labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so," and those that "consist of the whole or any part of a diseased, filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or * * * the product of a diseased animal or one that has died otherwise than by slaughter."

Mixtures, compounds, combinations, imitations and blends, which might otherwise be classed as adulterated foods, must bear a label showing their "exact character" and the "name and quantity or proportion of each constituent thereof." There are many articles of food which, by their very nature, are mixtures or compounds, such as pure jellies and jams, canned fruits and vegetables, prepared mustard, horse-radish and vinegar. Such mixtures are not, of course, adulterated foods by reason of the fact that they are composed of more than one ingredient. The food products which require labels are adulterated foods, which are at the same time mixtures, compounds, combinations, imitations and blends.

Preservatives, Sweeteners and Other Chemicals.

The use of Saccharine or Formaldehyde, or any other deleterious ingredient is forbidden by section 8, paragraph 6.

The attitude of this department will be against the use of chemical preservatives, except the usual and necessary amount of benzoate of soda in catsup, sweet cider, wet mincemeat and codfish, if the labels bear a statement of the presence of such preservatives.

Makers of various chemical preservatives and sweeteners have been advertising their preparations as complying with the food law, and a good many of them come labeled "Guaranteed under the National Food and Drugs Act." There is nothing in the food laws either State or National, to prevent one selling boric acid, or salicylic acid, or any other chemical or drug however harmful, but the laws do prohibit the sale of foods into which harmful substances are placed, and not one of the chemical preservatives sold by the various firms may be legally used in foods in this State, except as stated above. The various preservatives sold under attractive names and guarantees are almost certain to be composed of one or more of the following cheap chemicals:

Benzoic acid. Benzoate of soda.
Boric or boracic acid. Borax.

Salicylic acid.
Sodium sulphite.
Formaldehyde.
Fluorides.

Dealers are warned not to sell in this State foods containing any chemical preservatives under whatever name sold, except benzoate of soda, as explained above.

Some so-called preservatives, sold by various dealers, are found to be made of such common harmless ingredients as salt, saltpetre and starch and sold at extremely high prices, but of course their use does not render the foods adulterated.

Statements made by salesmen, or advertisements, to the effect that articles sold as preservatives are harmless, or that foods in which they may be used comply with the law, are uniformly contrary to facts.

Colors.

The use of harmful colors or dyes, or the use of color to cover up damage or inferiority, is prohibited. The use of color in catsup, or of sodium sulphite in fresh meat, is such a use of color. There is nothing in the food law to prevent the use of color in butter, cheese or sausage casings, assuming that the particular color used is not a harmful one.

Baking Powders.

Every can or package of baking powder is required to have plainly stated upon it the names of each and every ingredient of such powder. This requirement is found in section 8, paragraph 8, 1. Section 9 mentions the required form of type and the manner of making the statement.

While some latitude of nomenclature is evidently possible under the statute, the evident intention of the law is that the names of the ingredients shall be specific, rather than general, and shall be given with sufficient exactness in every case so that a chemical analysis will identify the particular substance claimed to be present.

No kind of baking powder is considered adulterated food under our statute, and the label requiring the ingredients is for the purpose of enabling the purchaser to know which variety of baking powder he is buying.

Dairy Products.

Besides the general food law, this State has specific laws in regard to the sale of milk, skimmed milk, cream, butter, cheese, and imitations of butter and cheese. The pure food law covers in some degree, also, renovated butter, condensed milk, condensed skimmed milk and evaporated milk.

There are no restrictions in any of the food laws or dairy laws on the use of salt, rennet, sugar or harmless coloring matter in dairy products, in which these added ingredients are usual or necessary.

Imitations of butter and cheese may not contain any added color-

ing matter, neither may they be sold if they have a yellow color for any other reason. The code, section 2517.

Standards are as follows:

Milk must contain not less than $12\frac{1}{2}$ per cent of milk solids and not less than 3 per cent of butterfat.

Skimmed milk is unadulterated milk containing less than 12½ per cent of milk solids or less than 3 per cent of butterfat.

Cream must contain not less than 15 per cent butterfat.

Cream, milk or skimmed milk are "adulterated" if anything whatever has been added. Section 4990, the code.

Butter must contain not less than 80 per cent butterfat. Food law, section 18 (1907).

Cheese must be made from milk that has not been adulterated or skimmed, or partially skimmed.

Skimmed milk cheese is that which has been made from skimmed milk, or partially skimmed milk and must be marked "skimmed milk cheese" in letters one inch high and a half-inch wide. The code, section 4989.

Condensed milk (sweetened) and condensed skimmed milk (sweetened) and evaporated milk (unsweetened) must be sold under names or labels not deceptive as to the character of the article itself.

Renovated butter and oleomargarine are articles upon which there is a United States revenue stamp tax and, under the revenue laws should be sold always from the package to which the revenue stamp is attached. The dealer in oleomargarine is required to have a license from the United States collector of internal revenue. There is no State restriction upon the sale of renovated butter, except that it must be sold under its proper name. The State law designates oleomargarine as "substitute for butter." When sold, it must be accompanied by a printed statement that it is a substitute for butter and giving the name and address of the maker. If used in a hotel, restaurant or other place, there must be exhibited opposite each table a card ten by fourteen inches in size, bearing in type one inch by a half-inch wide the words "Substitute for butter used here."

The sale or purchase, for the purpose of manufacturing any food product, of any milk or cream that is "unclean, unhealthful, adulterated or unwholesome, is forbidden; the commissioner and his assistants have authority for inspecting cans in which these products are transported, and to take samples therefrom for analysis."

Flavoring Extracts.

Section 18 of the food law enacts standards upon extracts and dealers should insist that the manufacturer of extracts shall guarantee his goods to be equivalent to the standards therein provided. These standards are the same as those adopted under the National statute, with the exception of vanilla which is substantially the same.

Extracts not of standard strength but otherwise unadulterated may be sold under titles such as "One Half Strength Vanilla Extract" "Three-fourths Standard Vanilla Extract," in which no artificial color may be added.

The so-called artificials are not properly labeled as extracts, but should be sold under such names as "artificial strawberry flavor," or "imitation strawberry flavor," and on such there is no standard of strength. It is not necessary to attach a label stating the ingredients. An imitation of vanilla extract should be sold as vanilla flavor and should bear the label stating the names and percentages of constituents.

The standards provide for terpeneless lemon extract, heretofore known as lemon flavor or washed lemon extract.

Only natural colors are permitted in extracts.

Imitations of vanilla extract, commonly sold as vanilla flavor; also mixtures of vanilla and tonka, require labels stating the names and proportions of constituents.

Flours.

Mixtures of two kinds of flour, such as rye with wheat flour or buckwheat with wheat flour, require the label stating the names and percentages of ingredients.

It is held that flours sold under the general name of pancake flour do not require the label even though they are mixtures of several ingredients.

Flour sold under such name as self-rising buckwheat flour are sufficiently labeled if they are composed of buckwheat flour and the leavening agents and nothing else. If composed of buckwheat and some other flour with the leavening agents the formal label stating the ingredients and percentages is required, and the title should read "Compound self-rising buckwheat flour."

Vinegars.

Section 18 of the food law gives standards on six kinds of vinegar as follows: Vinegar, cider vinegar, apple vinegar; wine vinegar, grape vinegar; malt vinegar; sugar vinegar; glucose vinegar; spirit vinegar; distilled vinegar; grain vinegar; from which it will be seen that the word vinegar when used alone is intended to mean cider vinegar. These varieties of vinegar may be sold without labels, but must be sold under their own respective names.

Vinegar which contains any added coloring matter, or which contains less than four percent acetic acid, is adulterated under this statute. No labels will legalize the sale of colored vinegar. See Sec. 8 paragraph 8.

Canned Vegetables.

The use of saccharine is prohibited by section 8, paragraph 6.

Sulphate of copper, commonly used to color so-called French peas, is a harmful coloring material and its use is prohibited.

Soaked peas may be sold, but are misbranded unless the label under which they are sold gives full information of their character.

The use of any bleacher or starch, or other filler, constitutes an adulteration.

Sugars, Syrups and Honey.

Mixed sugars and syrups of every kind and honey mixed with glucose or other ingredients require special labels showing the names and percentage of ingredients.

The names or titles under which they are sold must show the exact character.

For example the word "sorghum" is not a proper label or title under which to sell a mixture of sorghum and glucose. The title should be "sorghum and glucose" or "compound sorghum."

The name "corn syrup" or "glucose" but not the name "grape sugar" should be used for the liquid product usually known as glucose.

Confectionery.

Candy is adulterated if it contains any terra alba, barytes, talc, chrome yellow, or any mineral substance or any poisonous colors or flavors or any ingredients deleterious or detrimental to health.

Confectionery sold under a specific name, such as chocolate creams, coconut bars and similar titles must have the ingredient which the name indicates.

Ice Cream.

Section 4990 of the dairy law defines cream as having at least 15 per cent butterfat. This department holds that a frozen product made from standard cream, sweetened and flavored, may be properly sold under the name "ice cream."

A similar product, made from milk and other wholesome ingredients may be properly sold under a name not deceptive as to its character, but can not be properly designated as an ice cream.

This department will not interfere with the sale of ice cream and similar products containing not more than one per cent of gelatin.

Such terms as vanilla, strawberry, etc., prefixed to the words ice cream are held to represent the flavors rather than the ingredients.

No labels are necessary on pure goods.

No label can legalize the sale of an article containing deleterious ingredients.

The names under which articles are sold must be truthful and such as will not misrepresent the character of the article or the ingredients of which it is composed.

Soda Fountain Syrups, Crushed Fruits, Pop, Cider and Acidulated Soft Drinks.

These goods should be free from chemical preservatives, harmful colors and deleterious ingredients of every kind. The use of saccharine is prohibited. This department will not interfere with the proper use of benzoate of soda in crushed fruits, soda syrups and apple cider.

It is held that such names as "orange cider," "raspberry cider" and similar names are deceptive and their use on labels constitutes

misbranding. They should be designated as "artificial" or "imitation" or by some name that will accurately set forth their character.

Imitation apple cider, and other imitations, require labels stating the names and percentages of ingredients.

No particular labels are required upon goods of this general class, except those that are imitations, but the names or titles under which they are sold and the labels that may be attached by dealers may not be deceptive as to the articles or the ingredients from which they—

Mixed Jellies, Jams and Similar Products.

The words "jelly, jam, marmalade, fruit butter" and names of similar products are held to mean the product derived from the whole or some part of the single fruit named, mixed with sugar.

Mixtures of two fruits and sugar, or two fruits and glucose, or of fruit, sugar and glucose, are such mixtures or imitations as require the formal label, stating the names and percentages of ingredients.

The main label of such products should be such as to give no false impression in regard to the contents of the packages.

Catsup.

The use of color in catsup is prohibited. The use of starch or flour filler, or glucose, renders catsup adulterated and demands the formal label.

Coffee.

The coloring of coffee is contrary to the food law. The use of a chicory wash, or finish, is usually deceptive and is not permitted. The department will not interfere with the use of a sugar and egg coating, when the products used are wholesome.

The well known term "Mocha and Java" so often found upon coffee labels are instances of misbranding, unless the coffee contained in the package is really a mixture of Mocha and Java and nothing else.

Meats.

Under the federal meat inspection law, meats, sausages, lard and other products that come to the consumer in the packers' original package, bearing the meat inspection stamp, are unadulterated, or if adulterated, a statement of the fact and the kind of adulterant used will be found upon the label. If such adulterant occurs, the Iowa label must also be attached.

There is nothing in the food law to prevent the use of saltpetre.

Canned Meats.

Canned meats, put up under the present meat inspection law, will be properly labeled, and dependence may be put upon the names which appear upon the cans as being true.

Old stocks of such canned meats are very likely to be misbranded.

Sausages.

Deleterious ingredients are prohibited. This includes chemical preservatives of all kinds, and harmful colors. Saltpetre may be used. Harmless colors may be used in casings.

Sausages may be legally sold without labels, under such distinctive names as "bologna, Vienna, metwurst, salami," and similar names to indicate the kind or style of sausage.

Sausages may be legally sold without labels under such distinctive names as liver sausage, blood sausage, tongue sausage. While these sausages are evidently not made wholly from the organ which the name suggests, they will be treated as sausages sold under names indicating the kind of variety.

In the sausages covered by the two preceding paragraphs, it is recognized that flour may be a necessary and proper ingredient.

Sausages containing an abnormal quantity of flour are clearly adulterated. It is quite clear that the use of a small amount of flour in sausage is a customary and legitimate practice, for proper purposes. The commissioner has no authority to establish standards, but for the information of the public, it is here stated that this department will not interfere with the sale of sausage because of the presence of wholesome flour, provided that an analysis does not show more than 5 per cent of such flour. It is obvious that this statement can not apply to sausages represented to be pure meat, such as "pure pork sausage."

Sausage, sold under a name suggesting the kind of animal from which the meat comes, is adulterated if other meat is present. For example, pork sausage should be made wholly of pork.

Lard, Lard Substitutes and Lard Compounds.

The dealer knows from the packer's label whether the lard he gets is pure or not. If it is a lard mixed with beef fat, in any proportion, or if the product is an imitation of lard made of beef fat and cotton seed oil, the names and proportions of ingredients must be stated upon the label of every package in which it may be sold. This applies to all substances which are substitutes for lard and which resemble it in appearance, whether it is sold under a trade name or otherwise.

Oysters.

This department has discovered on sale oysters containing formaldehyde and boric acid respectively. These chemicals in any food products are harmful and dealers should take care that oysters handled by them shall be free from these or other chemical preservatives.

Codfish.

A great deal of codfish has been on the Iowa market, having been preserved with boric acid. The sale of any food product containing boric acid is illegal under our food law.

This department will not interfere with the sale of codfish preserved with benzoate of soda, as permitted under the National law, providing directions for the removal of the preservative accompany the package.

Fish, other than codfish, which are packed to look like and sell in the place of codfish, should be sold under their correct names.

Whiskey, and Other Intoxicants.

Upon packages of compound or imitation whiskey, including bar bottles and bottled goods, sold at retail, a formal label stating names and percentages of constituents is required. There is no requirement for labeling "straight" whiskey or "blends" of straight whiskey.

This department will follow the definitions and nomenclature adopted under the National statute, so far as possible.

Mixtures put up at the demand of the retail customer do not require specific labeling.

The names under which liquors are sold must be correct. For example, "Blackberry Brandy" so-called is usually neither a brandy nor is it made from blackberries. It may be labeled as "Cordial, Blackberry Flavor" or with some equivalent expression.

All "imitations" must give a list of names and percentage of constituents.

Spices and Condiments.

The use of a filler, or mixture of any kind, in spices, renders them adulterated and requires the label. The use of mustard bran in prepared mustard renders it adulterated.

Unwholesome Foods.

Section 8, paragraph eighth, prohibits the sale of "any part of a diseased, filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or the product of a diseased animal, or one that has died otherwise than by slaughter." Butchers should exercise extreme care that home killed meats shall be free from disease. This section of the law extends to the sale of rotten eggs, or any unwholesome provisions.

Exemptions.

Canned corn, "purchased or received by wholesale or retail dealers of this state" before July 1, 1906, is exempt from the provisions of the statute until January 1, 1908. All other "foods, drinks, confectionery and condiments" are subject to the provisions of the statute as here set forth, on and after July 4, 1907.

A reasonable time will be given after July 4th for retailers to dispose of wholesome goods they may have on hand when the same are labeled in conformity to the statute as it was in effect before July 4, 1907. Such goods should be disposed of as rapidly as possible.

Forms of Labels Required.

The following forms of labels are suggested as complying with the requirements of the law:

Label required upon maple and cane syrup:

Maple Syrup	60%
Cane Syrup	40%

Forms for imitation vanilla flavor:

Extract of Vanilla	30%
Solution of Vanillin	40%
Solution of Coumarin	30%
	Caramel color.

Or:

Extract of Vanilla	30%
Extract of Tonka	10%
Vanillin	0.14%
Coumarin	0.10%
Alcohol and Water to Make	100%

The name of the manufacturer, packer or dealer is also required. The names of ingredients must be in "continuous list with no intervening matter" of any kind.

The above represents the size type mentioned in section 9. Note that labels in which the proportions are stated instead of the percentages also comply with the statute. For example:

Imitation lard:

Four Parts Beef Stearine.

One Part Cotton Seed Oil.

STATE OF WISCONSIN,

County of Barron, ss:

I, H. R. Wright, being first duly sworn, on oath state that I am the Dairy & Food Commissioner of the State of Iowa; that the foregoing pamphlet is an official publication issued by myself for the Food & Dairy Department of the State of Iowa, as authorized by law; that the statements made in the foregoing bulletin are true to the best of my knowledge and belief.

H. R. WRIGHT.

Subscribed and sworn to before me by the said H. R. Wright, this 27th day of June 1908.

EDDIE OLSON,
Notary Public, Wis.

[NOTARIAL SEAL.]

Term Expires Apr. 10, 1910.

768 STATE OF WISCONSIN,
Dane County, ss:

I, Lawrence O. Larson, clerk of the circuit court within and for said county of Dane, in obedience to the mandate of the within and foregoing writ of error and of the foregoing order of said circuit court requiring the return of the original papers of record in the action in which said writ of error is issued instead of certified copies thereof, and the stipulation of the parties relative to a supplemental return herein, herewith transmit and return to the honorable supreme court of the state of Wisconsin the original bill of exceptions prepared, made, signed and certified by the Hon. E. Ray Stevens, judge of said court, and filed in my office in said action on the 27th day of September, 1909, in accordance with the stipulation of the parties to said action, which said stipulation was heretofore returned to the supreme court as a part of the record in this action.

In testimony whereof I hereunto set my hand and affix the seal of the said circuit court this 27th day of September, 1909.

[SEAL.]

LAWRENCE O. LARSON,
Clerk Circuit Court for the County of
Dane, State of Wisconsin.

769 And afterwards on the 19th day of March, A. D. 1910, the same being the 18th day of said term, the following proceedings were had in said cause in this court.

Dane Circuit Court.

GEORGE McDERMOTT, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

And now at this day came the parties herein by their attorneys, and the argument of this cause having been commenced by H. O. Fairchild, Esq., for the said Plaintiff in Error, and by J. M. Olin, Esq., for the said defendant in Error, and there not being now sufficient time to complete the same, it is continued for further argument.

770 And afterwards on the 21st day of March, A. D. 1910, the same being the 20th day of said term, the following proceedings were had in said cause in this Court:

Dane Circuit Court.

GEORGE McDERMOTT, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

And now at this day came the parties herein by their attorneys and argument of this cause having been resumed and completed,

and the Court not being now sufficiently advised of and concerning its decision herein, took time to consider of its opinion.

771 And afterwards, to-wit: on the 24th day of May, A. D. 1910, the same being the thirty-first day of said term, the judgment of this court was rendered in words and figures following, that is to say:

Dane Circuit Court.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Opinion by Justice Siebecker.

This cause came on to be heard on the return to the writ of error issued herein and was argued by counsel. On consideration whereof, it is now here ordered and adjudged by this Court, that the judgment of the circuit court of Dane County, in this cause, be and the same is hereby affirmed.

Justices Marshall and Timlin dissent.

772 Thereupon the opinion of the Court by Justice Siebecker and the dissenting opinion of Justice Tilmin were filed in words and figures following, that is to say:

773 STATE OF WISCONSIN,
In Supreme Court:

Nos. 2 & 3, State.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
THE STATE OF WISCONSIN, Defendant in Error.

T. H. GRADY, Plaintiff in Error,
vs.
THE STATE OF WISCONSIN, Defendant in Error.

The defendants were, in separate actions, convicted in the municipal court of Dane county of violating chapter 557, Laws 1907. Upon appeal to the circuit court for Dane county, each of the defendants waived a jury, and entered into a stipulation with the state, whereby the two actions were to be tried together, and the testimony taken was to be regarded as the testimony in each case. The actions are before this court on writs of error to the circuit court for a review of the proceedings wherein they were convicted and sentenced. Chapter 557, Laws 1907, so far as essential to the consideration of these actions, provides as follows: "No person * * * shall sell, offer or expose for sale or have in his possession

with intent to sell any syrup, * * * unless the same be true to the name under which it is sold and as defined in the standards for purity for food products as latest promulgated by the United States Secretary of Agriculture; * * * and no person * * * shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, * * * or molasses, mixed with glucose, unless the barrel, cask, keg, can, pail or other original container, containing the same be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture, as follows: First: In case said mixture shall contain glucose in a proportion not to exceed 50 per cent. by weight, it shall be labeled and sold as 'Maple Syrup and Glucose.' * * * Second: In case said mixture shall contain glucose in proportion exceeding 50 per cent. and not more than 75 per cent. by weight, it shall be labeled and sold as 'Glucose and Maple Syrup.' * * * Third: In case said mixture shall contain glucose in a proportion exceeding 75 per cent. by weight, it shall be labeled and sold at 'Glucose Flavored with Maple Syrup.' * * *

The complaint in one case charges the defendant with having had for sale and selling a certain mixture composed of more than 75 per cent. glucose and less than 25 per cent. cane syrup, and that the can containing the mixture was labeled "Karo Corn Syrup"; "10 per cent. Cane Syrup, 90 per cent. Corn Syrup." In the case of the other defendant it is charged that the can was labeled "Karo Corn Syrup with Corn Flavor"; "Corn Syrup 85 per cent." The defendants are retail merchants at Oregon, Dane county. The goods are bought by each of them from wholesalers in Chicago, a number of cans being packed together in a box. When received by the defendants, the goods were removed from the boxes and placed upon the shelves in the stores for sale in their retail trade. The wooden boxes in which the goods were received have been destroyed. The sale of the articles is admitted. Glucose is a viscid product made by treating starch with mineral acids. The acid is then neutralized, the product made colorless, and the water in it largely evaporated. Glucose is of a slightly sweet, insipid taste, and, in order to make it a palatable and saleable article of food, it is mixed with and flavored by cane, maple, refiners', or sorghum syrup. In Europe the starch used for producing glucose is almost exclusively obtained from potatoes; in the United States from corn. There was evidence that in the United States exists a prejudice against glucose as an article of food, and that dealers and manufacturers label and sell it as "Corn Syrup."

SIEBECKER, J.:

775 The defendants in these two actions admit that in the conduct of their retail trade at their respective places of business they sold the article as a table syrup, as charged in the complaint. It is also admitted that the purchaser received from each defendant a can of goods of what is called "Karo," "Corn Syrup

with (Cane) Flavor," which is a mixture of glucose and refinery syrup.

Chapter 557, Laws 1907, provides that no person shall sell, offer or expose for sale, or have in his possession with intent to sell, any of the syrups specified in the act or any molasses or glucose, unless the same be true to the name under which it is sold and as defined in the standards of purity for food products as latest promulgated by the United States Secretary of Agriculture, and unless the barrel, cask, keg, can, pail, or other original container containing the same be distinctly branded or labeled with the true name of its contents, as defined in the above-named standards; and no person shall sell, offer or expose for sale or have in his possession with intent to sell, any syrup or molasses mixed with glucose, unless the barrel, cask, keg, can, pail, or other original container containing the same be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture. The law then prescribes how syrup and glucose mixtures shall be labeled and branded, and separates the same into three classes: First. If the proportion of glucose does not exceed 50 per cent. by weight, it shall be labeled and sold by prefixing the name of syrup used as "Maple Syrup and Glucose." Second. If such proportion of glucose exceeds 50 per cent. and not more than 75 per cent., it shall be labeled and sold by adding the name of syrup as "Glucose and Maple Syrup." Third. If the proportion of glucose exceeds 75 per cent., it shall be labeled and sold by adding the name of syrup used for flavoring as "Glucose Flavored with Maple Syrup." It also prescribes the type and color of the label and that the ingredients used must be free from substances injurious to health or prohibited for use as articles of food. Any person violating the provisions of the act is deemed guilty of a misdemeanor and subject to fine and imprisonment.

The defendants assail the validity of this legislation upon several grounds. It is asserted that the act is invalid because the provisions are violative of the commerce clause of the federal Constitution, in that it attempts to regulate interstate commerce in an article of food, and that Congress has heretofore exercised its power by enacting specific regulations on the subject. The legislation, so far as it may be said to affect interstate commerce, falls within what has been termed the field of "concurrent jurisdiction" of the state and federal governments, and wherein the state may enact appropriate regulations provided they do not conflict with congressional legislation

on the subject. *Brown v. Houston*, 114 U. S. 622, 5 Sup. Ct. 776 1091, 29 L. Ed. 257; *State v. Railway Co.*, 136 Wis. 407, 117 N. W. 686, 19 L. R. A. (N. S.) 326.

The contention, however, is earnestly pressed upon us that the provisions of this state statute which have been applied to these defendants are in conflict with the rights secured under the federal Constitution granting the federal government authority to regulate interstate commerce. To support this claim, it is asserted that defendants' sales of the article in the cans as imported by them were sales in unbroken original packages; that to make such sales is a right secured to them as importers; and that the state regulations

impose restrictions on them as importers, and thus violate their rights secured to them by the federal Constitution. In *Greek-American Sponge Company v. Richardson Drug Co.*, 124 Wis. 469, 102 N. W. 888, 109 Am. St. Rep. 961, the right of an importer to sell the articles imported into a state was considered and the original case of *Brown v. Maryland*, 12 Wheat. 419, 6 L. Ed. 678, was relied on to the proposition that "sale is the object of importation and is an essential ingredient of that intercourse of which importation constitutes a part." This right of sale is therefore under the federal authority assured to the importer because it is an act which, if inhibited, would in effect be a prohibition of the importation. In *Schollenberger v. Pa.*, 171 U. S. 13, 18 Sup. Ct. 762, 43 L. Ed. 49, the court, speaking on this subject, says: "Reasonable and appropriate laws for the inspection of articles including food products were admitted to be valid, but absolute prohibition of an unadulterated, healthy, and pure article has never been permitted as a remedy against the importation of that which was adulterated and therefore unhealthy or impure." The provisions of this statute in no way prohibit the sale of the articles embraced within the regulation. Its object is to so regulate the traffic therein as to protect the people against imposition and false pretenses. The context of the law evinces the purpose that the regulations should apply to the traffic in the designated articles of food from the time they become at rest and mingled with the property of the state. That goods and merchandise transported from one state to another may thus become commingled with property of the state upon arrival at its destination by treating it as other property for sale to customers in a retail business was recognized in *Brown v. Houston*, 114 U. S. 622, 5 Sup. Ct. 1091, 29 L. Ed. 257. Under such circumstances, the fact that the articles are being sold in the original packages as transported cannot operate to prevent the state from subjecting them to proper police regulation for the protection of the people. Under such conditions, the articles are no longer in the channels of interstate commerce at the point of destination and before sale. Their status at this point is like that of other property held by dealers for sale to consumers in the retail trade. As was stated by Chief Justice Marshall in *Brown v. Maryland*, 12 Wheat. 419, 6 L. Ed. 678, the original case concerning sales by importers: "It is sufficient for the present to say generally that when the importer has so acted upon the thing imported that it has become incorporated and mixed up with more of the property of the country, it has perhaps lost its distinctive character as an import. * * *". Applying this principle for distinguishing between articles that are within and without the channel of interstate commerce to the facts of the instant case, it seems clear that, when the defendants received the articles at their places of business, removed the cans from the container in which they were shipped, and put the goods up for sale in the cans as they received them, they had so dealt with the articles as to mingle them with the general property of the state before they were sold by them in their retail trade. *May v. New Orleans*, 178 U. S. 496, 20 Sup. Ct. 976, 44 L. Ed. 1165; *Plumley v. Mass.*, 155 U. S.

462, 15 Sup. Ct. 154, 39 L. Ed. 223; *Austin v. Tennessee*, 179 U. S. 343, 21 Sup. Ct. 132, 45 L. Ed. 224.

It is, however, argued that these articles were in the channels of interstate commerce at the time of the sale because Congress, under the food and drugs act (Act June 30, 1906, c. 3915, 34 Stat. 760 [U. S. Comp. St. Supp. 1909, p. 1187]), regulated the traffic therein, and that such regulation extends to and covers the regulation provided by the state law. The contention is that the federal act by specific regulation provides for the branding and labeling of articles of food, and that this regulation covers and embraces the acts of sale for which the defendants are being prosecuted and punished under this state law. The title of this federal act declares its purpose is to prevent "the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods," and for regulating traffic therein. By section 1 of the act it is made unlawful for any person to manufacture food in any territory and the District of Columbia which is adulterated or misbranded. Section 2 provides: "That the introduction into any state or territory or the District of Columbia from any other state or territory or the District of Columbia, or from any foreign country, or shipment to any foreign country of any article of food or drugs which is adulterated or misbranded, within the meaning of this act, is hereby prohibited; and any person who shall ship or deliver for shipment from any state or territory or the District of Columbia to any other state or territory or the District of Columbia, or to a foreign country, or who shall receive in any state or territory or the District of Columbia from any other state or territory or the District of Columbia, or foreign country, and having so received, shall deliver, in original unbroken packages, for pay or otherwise, or offer to deliver to any other person, any such article so adulterated or misbranded within the meaning of this act, or any person who shall sell or offer for sale in the District of Columbia or the territories of the United States any such adulterated or misbranded foods or drugs, or export or offer to export the same to any foreign country, shall be guilty of a misdemeanor," etc. In so far as this act regulates interstate commerce in articles of food, it is a prohibition of the introduction of adulterated and misbranded articles of food from one state into another, and provides a punishment if any person shall ship or deliver for shipment such an article from one state to another, or who shall deliver it in the original unbroken packages for pay or otherwise, or offer to deliver it to any person, or any person selling it or offering it for sale, in the District of Columbia or the territories of the United States. The first paragraph of this section forbids any person shipping and delivering for shipment the prohibited article from one state to another and receiving such an article into a state, and, after having so received it, delivering it in the original unbroken packages for pay or otherwise or offering to so deliver it. It will be observed that this part of the act does attempt to regulate the traffic in these articles in the course of their importation from one state into another without reference to a sale thereof after arrival at their destination. But in the next clause the sale

thereof is also regulated in the District of Columbia and territories of the United States. The terms of the act plainly indicate that Congress extended its regulation expressly to the acts of sales in the District of Columbia and the territories and the provisions of that regulation did not extend to the act of sale of an importation from one state to another. It is evident from these provisions of the act that Congress intended to extend its regulation of this traffic in the District of Columbia and the territories beyond the traffic within the channels of interstate commerce, obviously for the reason that the legislative function to prescribe all police regulations within these jurisdictions devolves on it, while in the several states of the Union this function devolves on the Legislatures. *Sherlock v. Alling*, 93 U. S. 99, 23 L. Ed. 819; *Smith v. Ala.*, 124 U. S. 465, 8 Sup. Ct. 564, 31 L. Ed. 508; *Dent v. W. Va.*, 129 U. S. 114, 9 Sup. Ct. 231, 32 L. Ed. 623; *In re Rahrer*, 140 U. S. 545, 11 Sup. Ct. 865, 35 L. Ed. 572. It will be observed that the statute of this state does not prohibit the sale or traffic in the article sold by the defendants, but seeks to regulate the traffic therein to the extent of prescribing how the packages shall be labeled and branded to afford persons information as to the kinds and proportions of the ingredients composing the mixture. Its evident purpose is to prevent deception and to promote fair dealing in the sale of an article of food. If the regulation provided by the state tends to correct an actual evil in the traffic by which purchasers of an article of food are being deceived into buying something which it in fact is not, then the state acted within its appropriate field under the police power, and the law cannot be said to be invalid for want of power in the state to deal with the subject. The right of the state to legislate on this subject under such circumstances is well recognized and established.

The law is also assailed on the ground of indefiniteness in its provisions, and that it attempts to delegate legislative power to the Secretary of Agriculture of the United States. These alleged objectionable features are embodied in the first clause of St. 1898, §4601-1a, which prohibits selling, offering, or exposing for sale, or having possession with intent of selling, any unmixed syrup, molasses, or glucose "unless the same be true to the name under which it is sold and as defined in the standards of purity for food products latest promulgated by the United States Secretary of Agriculture," and requires the packages or containers to be branded or labeled accordingly. The section in a separate and independent clause next provides that no person shall sell any such syrup or molasses mixed with glucose, unless the original containers be branded or labeled as therein provided. The lower court held that the first part of the act relating to the mixtures of syrups, molasses, and glucose is a separate and independent clause, and wholly distinct from the clause preceding it, which deals with articles in their unmixed state as defined in the prescribed standard of purity. We are of the opinion that this ruling is correct. The provision pertaining to the mixed articles is as distinct from those in the preceding clause as if separated into independent sections; nor are the provisions of the

former essential to give the latter meaning or completion. The two parts deal with distinct topics in an independent manner. Under these conditions, we think that these two parts of the act were treated by the Legislature, and that the one may be made operative and enforced without the other. The Legislature might well have considered that the simple unmixed articles for which standards were prescribed were much less liable to have been made the subject of imposition on the public than the mixed articles involved in the second clause, and thereby were induced to legislate as to the latter regardless of the considerations involved in prescribing regulations for the former. Under such conditions, there is no apparent ground for holding that the adoption of the one part of the act was conditioned upon the adoption of the other. This renders unnecessary consideration of the validity of the first part which is assailed by the defendants, and we do not pass on the question. *Loeb v. Columbia Township Trustees*, 179 U. S. 472, 21 Sup. Ct. 174, 45 L. Ed. 280;

Quiggle v. Herman, 131 Wis. 379, 111 N. W. 479; *State v. Sawyer Co.*, 123 N. W. 248. The defendants assert that they are deprived of their liberty and property under the provisions of this state statute without due process of law, in that the act violates sections 1, 8, 9, and 13 of article 1 of the state Constitution and the fourteenth amendment of the Constitution of the United States. The propositions involved in this claim of the defendants, as we comprehend them, are that as a matter of fact the article sold is a wholesome article of food for table use; that it is in fact a syrup as this term is commonly used and understood; that the terms "glucose" and "corn syrup" are synonymous and are in commerce interchangeably applied to the product obtained from the starch containing part of corn; that the article sold is known to consumers as "Corn Syrup" and is by them understood to be a compound of the product obtained from the starch of corn, mixed and flavored with table syrup. The record sustains the contention that commercial glucose is extensively used as an ingredient in articles of food, and in its pure state is a nutritious and wholesome product. The claim that it is in fact a syrup, as this term is commonly used and understood, is not sustained. The term "syrup" has an accepted meaning as commonly and properly understood and applied to articles of food for table use. It is in this sense that the term must be applied in dealing with this subject, and in this sense the term "syrup" is employed in this and kindred legislation regulating traffic in foods. The term "syrup" thus employed designates articles of food which are in common use as table syrups such as maple, sugar cane, and refiners' syrup. These articles in their pure and unmixed state are known by their inherent and peculiar colors, flavors, and viscosity which make them acceptable as to quality and imparts to them an agreeable taste, and hence they are desirable as articles of table food. The evidence shows that such table syrups are the products of sugar producing plants and possess these natural characteristics of flavors, colors, and consistency, and that they are commonly distinguished and known in the trade as syrups. It is not disputed but that glucose, whether made from corn or other

starch containing substance, is not such a syrup, and that it has none of the flavors or colors of these table syrups, though it has viscosity. The court was therefore fully justified in finding that glucose in the pure and unmixed state is not a syrup in the sense the term is commonly used and applied to these articles of table foods, and that the terms "glucose" and "corn syrup" are not synonymous in their trade meaning and use as applied to articles of table food. The fact that the term "corn syrup" may have been applied to glucose to some extent by manufacturers and dealers and was thus employed in legislation in this state and in the decisions of courts does not

781 show that glucose is commonly known by the designation of "co.n syrup." The characteristics and qualities of glucose in its pure state are admittedly not those of the articles known in the trade as table syrups; nor is it used as a table syrup in its unmixed state. The term "corn syrup," as applied generally to an article for table use, conveys a meaning and designates an article wholly different in character and quality from that of glucose. It does not appear that "corn syrup" designates a mixture having a fixed proportion of glucose or syrup constituents. It seems that such constituents are of variant proportions in the article sold as "corn syrup." Nor can it be said that the great mass of persons understand that "corn syrup" is a mixture of glucose and syrup. The natural result of such use of the term "corn syrup" is to mislead the consumers into the belief that they are obtaining a table syrup of the variety and kind commonly known as syrup, the product of sugar producing plants, and the consequences of such practice are that the consumers are misled and deceived in the respects as to the actual nature, the constituents, and the value of the article as a food product. Such a state and condition of affairs respecting the traffic in an article of food, though the article and its constituents are wholesome, is a well-recognized ground for the exercise of legislative authority under the police power to prescribe regulations to protect the people from imposition and deception in trafficking therein. *Gibbons v. Ogden*, 9 Wheat. 1, 6 L. Ed. 23; *Barbier v. Connolly*, 113 U. S. 27, 5 Sup. Ct. 357, 28 L. Ed. 923; *Powell v. Pa.*, 127 U. S. 678, 8 Sup. Ct. 992, 1257, 32 L. Ed. 253; *Crossman v. Lurman*, 192 U. S. 189, 24 Sup. Ct. 234, 48 L. Ed. 401.

In reviewing the cases on this subject, the court in *Plumley v. Mass.*, 155 U. S. 472, 15 Sup. Ct. 158, 39 L. Ed. 223, said: "If there be any subject over which it would seem the state ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may indeed indirectly or incidentally affect trade in such products transported from one state to another state, but the circumstance does not show that laws of the character alluded to are inconsistent with the power of Congress to regulate commerce among the states." *Sherlock v. Alling*, 93 U. S. 99, 23 L. Ed. 819; *Austin v. Tenn.*, 179 U. S. 343, 21 Sup. Ct. 132, 45 L. Ed. 224; *Powell v. Pa.* 127 U. S.

678, 8 Sup. Ct. 992, 1257, 32 L. Ed. 253; *Meyer v. State*, 134 Wis. 156, 114 N. W. 501, 14 L. R. A. (N. S.) 1061.

The provisions of chapter 557, Laws 1907, under which these defendants were prosecuted and fined, clearly forbid sales without labeling or branding the articles as prescribed. That this legislation was a proper exercise of the legislative authority within the police power of the state we think is established by the authorities heretofore cited. Under these circumstances, the defendants' liberty and property rights secured to them by the state and federal Constitutions have not been invaded, and their conviction of the charges preferred against them must be approved.

The judgment in each of the cases separately appealed from is affirmed.

Marshall and Timlin, JJ., dissenting.

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State's Nos. 2 & 3.

TIMLIN, J. (dissenting): I cannot bring myself into agreement with the majority opinion. I suppose it is unquestioned law and will be generally conceded that where a regulatory statute restrains, diminishes, or denies a constitutional right, such as liberty or the use and enjoyment of property, it is the duty of and within the power of the court to inquire whether such statute really subverts any public purpose giving the legislative predicate that it does so to the utmost deference. *Mugler v. Kansas*, 123 U. S. 623, 8 Sup. Ct. 273, 31 L. Ed. 205; *State v. Redmon*, 134 Wis. 89, 114 N. W. 137, 14 L. R. A. (N. S.) 229, 126 Am. St. Rep. 1003; *Schollenberger v. Pennsylvania*, 171 U. S. 1, 18 Sup. Ct. 757, 43 L. Ed. 49; *Dobbins v. Los Angeles*, 195 U. S. 236, 25 Sup. Ct. 18, 49 L. Ed. 169; *Allgeyer v. Louisiana*, 165 U. S. 578, 17 Sup. Ct. 427, 41 L. Ed. 832. Hence, if a statute based solely upon the preservation of the public health purported to restrain the sale or use of an article of food known by all possessing ordinary intelligence to be wholesome and nutritious although the article might be caviare to the "unlearned increment," the statute would be declared void because it would in that case be apparent to the court that the law was based upon a clearly apparent error of fact on the part of the Legislature as regards the relation of the law to the general public, and such law assuming to restrain liberty or interfere with the use and enjoyment of property must fall because it lacked the support which the statute must have before it can invade in any material degree these constitutional rights. It is conceded by the circuit court and by the majority opinion, I think, that the substance here in question is wholesome, and in no wise injurious to health. In any view this is established. When we come to consider such a statute which has no support as preserving the public health or the public peace, but must be upheld if at all on the ground that it is intended to protect the public against deception and fraud, many new considerations arise. First, what deceit or fraud will suffice to uphold such a statute? Will anything in conflict with the most refined ethics suffice? Will fraud upon the public be in such case defined from the view-point of caveat

emptor or caveat venditor, etc.? If anything inethical will support such a statute, and we defer in proper degree to the Legislature and make the allowance for difference of opinion which we accord to that branch of the government, then there has been discovered a field in which constitutional guarantees are vain and worthless, and in which legislative activity may expend itself in fostering one commercial interest or industry at the expense of another; for trade is practically always inethical. We would by sustaining such laws also invite into the legislative halls the struggle for industrial and commercial gain or supremacy, and in such case, if experience counts for anything, there is no doubt that the invitation would be eagerly accepted.

Without pursuing these reflections further, my opinion is that the fraud or-deceit upon the public which will uphold such a statute and justify reasonable restriction of constitutional rights must be something which is recognized by law as actionable fraud. In other words, there must be damage as well as deception. To use a simple illustration: I do not think a statute imposing a penalty upon any one who sold salt not branded or designated as "chloride of sodium" or "sodium chloride" would be valid no matter what number of persons would refuse to use it under the latter name because they relished it as salt and despised it as sodium chloride. In such case, in most cases which arise, and in the instant case (unless this ground of invalidity appears on the face of the statute), the court, because of the paramount rule of constitutional law involved, must hold the regulatory statute invalid when from judicial knowledge or notice the court can see that the statute can have no such relation to the public peace, health, morals, or welfare as is requisite to uphold the encroachment upon constitutional rights. Great weight will, of course, be given to the assumed determination of this question by the Legislature. All this is now elementary law, but there remains its application. Chapter 152, Laws Wis. 1905, an act entitled as "relating to the sale of syrups, molasses and glucose mixtures," provided that no person should "sell or expose or offer for sale or have in his possession with intent to sell any syrup, sugar cane syrup, sorghum syrup, molasses or glucose, unless the same be true to the name under which it is sold, and as defined in the standards of purity for food products as adopted by the United States Department of Agriculture and unless the barrel, cask, keg, can, pail, or package containing the same be distinctly branded or labeled with the true name of its contents as defined in the above-named standards; and no person shall sell, offer, expose for sale or have in his possession with intent to sell any syrup, sugar cane syrup, sorghum syrup or molasses mixed with glucose unless the mixture be sold as and for compound glucose mixture or corn syrup, and unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled 'Glucose Mixture' or 'Corn Syrup' in plain Gothic type," etc. Chapter 557, Laws Wis. 1907, under which the plaintiffs in error were convicted, is entitled, "An Act to amend sections 1 and 2 of chapter 152, Laws of 1905, * * * relating to the sale of syrups, molasses, glucose mixtures

and maple syrup mixtures, and to protect the public health." It amended the first-mentioned act to read: "*No person, firm or corporation by himself, officer, servant, or agent or as the officer, servant or agent of any other person, firm or corporation, shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup, molasses or glucose unless the same be true to the name under which it is sold as defined in the standards of purity for food products as * * * latest promulgated by the United States Secretary of Agriculture and unless the barrel, cask, keg, can, pail or * * * other original container containing the same be distinctly branded or labeled with the true name of its contents as defined in the above-named standards; and no person, firm or corporation by himself, officer, servant or agent, or as the officer, servant or agent of any other person, firm or corporation, shall sell, offer or expose for sale, or have in his possession with intent to sell any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup or molasses mixed with glucose unless the * * * barrel, cask, keg, can, pail or * * * other original container containing the same be distinctly branded or labeled * * * so as to plainly show the true name of each and all of the ingredients composing such mixture as follows: * * * Third. In case said mixture shall contain glucose in a proportion exceeding seventy-five per cent. by weight it shall be labeled and sold as * * * 'Glucose Flavored with Refiners' Syrup,'*" etc. The words italicised by me in the act of 1905 are omitted from the act of 1907, the italicised words in the act of 1907 are new in that act, and the asterisks in the latter act denote the places where the words omitted from the act of 1905 formerly appeared.

Prior to the commission of the acts for which plaintiffs in error are prosecuted, the United States Secretary of Agriculture, proceeding under the act of Congress of June 30, 1906, and acting with the Secretary of the Treasury and the Secretary of Commerce and Labor, made a decision or regulation as follows: "Washington, D. C., February 13, 1908.—We have each given careful consideration to the labelling under the Pure Food Law of the thick viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose maltose and dextrin. In our opinion it is lawful to label this syrup as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if 785 labeled 'Corn Syrup with Cane Flavor' [Signed]." The accused at the time they acted were then confronted with a Wisconsin statute which on its face authorized them to describe, brand or label this substance by the same name by which it was lawfully known in interstate commerce and to sell and deal in it within the state under that name, viz., "Corn Syrup." Indeed, the statute went further, and required them to designate this substance as corn syrup, at least after the latest promulgation of the Secretary of Agriculture on February 13, 1908. But by that part of the statute of 1907 following the first semicolon that substance which in its un-

mixed condition may or must be called "Corn Syrup" under the precedent portion of the same act must when mixed with other designated substances be called "Glucose." Would not such a statute rather authorize deception than prevent it? Does the statute not carry with it the inference that the legislative object is to prevent or make difficult sales of the mixture by giving this substance in the mixture a different name from that given by the statute to it while it is in an unmixed condition? In the simple, says the statute, it shall be called and known as "Corn Syrup"; in the compound, the same substance shall be labeled "Glucose." The law either authorizes a false and misleading designation of the substance in the first place or it prohibits the use of a proper and lawfully authorized designation in the second place. It must be the latter because the term "Corn Syrup" is truly descriptive of the substance in question by reference to its origin and its appearance to the eye, and because by that portion of the statute in question preceding the first semicolon this substance may and perhaps must be so designated in interstate commerce as well as in intrastate commerce. The one name is composed of German and Latin derivatives and identifies the substance by two of its qualities, origin and appearance. The other name is Greek and identifies the substance by one of its qualities, sweetness. But the former term has been legalized as a name for the unmixed substance and remains so legalized. When the statute in question was enacted, the Legislature so framed the first part of the statute that the name by which this substance was known or should become known in interstate commerce under the rulings of the Secretary of Agriculture should also be the lawful name by which the substance should be known in the internal commerce of the state. This part of the statute considered with the order of the United States Secretary of Agriculture of 1908 establishes, therefore, that designating the substance in question by the words "Corn Syrup" does not deceive. In the nature of things it could not deceive or defraud to describe one ingredient of a mixture by its proper, legal, and authorized name which it bore before being put into the mixture. The Legislature did not determine that this was a false description because it had before the amendatory act of 1907, and in and by the latter act authorized the use of these words to designate the substance in question. That the Legislature did not by this act of 1907 intend protection against fraud or deception is also apparent from the title thereof wherein it is stated that the object of the act is "to protect the public health." The title of an act is not potent to limit or enlarge the words of the act, but for ascertaining the mischiefs which in the legislative mind the statute was aimed to prevent it has great force. Particularly is this true in a state like Wisconsin, where before being put on their passage acts are read merely by reading the title. *Eby's Appeal*, 70 Pa. 311, 314; *Conn. M. L. I. Co. v. Albert*, 39 Mo. 181; *United States v. Fisher*, 2 Cranch, 358, 383, 2 L. Ed. 304, and cases in *Rose's Notes*; *United States v. Palmer*, 3 Wheat. 610, 631, 4 L. Ed. 471; *Price v. Forrest*, 173 U. S. 427, op., 19 Sup. Ct. 434, 43 L. Ed. 749; *Nazro v. Merchants' I. Co.*, 14 Wis. 295. The Legislature of

Wisconsin enacted this law to preserve the public health just as it declared in the title it did, but under the impression, now shown to be erroneous, that the prepared and partially hydrolized starch of corn was an unwholesome food, and the statute cannot and should not now be attempted to be upheld upon the different ground of prevention of fraud. It also appears, I think, as matter of fact, that there could be no deception of the public by the label in question. The article was sold as "Karo Corn Syrup with Cane Flavor." The word "Karo" I take to be a mere trade-name or trade-mark. The words "Corn Syrup" are not only a lawful but also a popular designation of the substance otherwise called "glucose," and there is no controversy but what the article sold was corn syrup or glucose flavored with refiners' syrup. Returning again to the order of the Secretary of Agriculture of date February 13, 1908, made pursuant to the act of Congress of June 30, 1906, we find this: "In our opinion it is lawful to label this syrup as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'Corn Syrup with Cane Flavor.'" This is quoted again because it bears on the question of fact as well as on the question of law appearing on the face of the statute. It shows that the defendants were dealing in or selling the article under a name authorized and lawful in interstate commerce, and also under a name with which the public must have been familiar because of its extensive use in commerce. Add to this that the statute of Wisconsin for 1905 first quoted authorized this name, that books, newspapers, market reports, dictionaries, and encyclopedias speak of it as cereal syrup or as corn syrup, and that these

787 words are in no respect false or misleading aside from the statute, but truly represent the origin and appearance of the substance, and it appears to me that there could have been no deception or fraud unless upon a class of people who by reason of ignorance have little or no knowledge of current speech, writings, statutes, trade, or commerce, and possess an unreasoning prejudice against anything named glucose, but find the substance if labeled "Corn Syrup" palatable and cheap, and would purchase and use it if labeled "Corn Syrup," but would not if labeled "Glucose." I do not think that, even conceding the existence of such a class, a police regulation based upon protecting the prejudice of the ignorant would be at all valid, but rather that this would be an additional ground of invalidity because of there being two permissible names each of which truly described the substance and the Legislature compelled the selection of one which would limit the owner's sales and damage his trade. The oleomargarine cases are irrelevant. These are cases of deceit by disguise and damage by sale of the cheap and inferior as and for the costly and superior article. This is a case of two names for the same substance. One describes it at least as well as the other. The defendants are compelled to use the first to identify the pure substance. Without prolonging this dissent further, I think such legislation is unconstitutional both under the Constitution of this state and under the fourteenth amendment

to the Constitution of the United States. It tends to deprive the citizen of liberty and property contrary to law by requiring him to change the name and designation under which he purchased this property, and give it some name or designation instead offensive to some part of the trade without any legal foundation or reason for so doing. I make no question but that if it had been shown that the article was injurious to health, or the sale of it constituted a legal fraud, the state in the exercise of its police power might restrict its sale by requiring it to be branded with some unpopular name, if that name alone truly designated the substance. That would be a reasonable police regulation interfering with interstate commerce to some extent, but not to an unlawful extent. It would restrict and impede that commerce by forbidding the persons engaged therein from selling or further dealing in the articles of commerce after such articles had reached this state, but it would be justified by the necessities of the case. I also think there the power of the state Legislature ends, and, when the state regulation is shown to have no foundation in the police power of the state, such regulation becomes ineffective to restrain or interfere with the further traffic by the person engaged in interstate commerce in such article. So that both on the ground that the statute restricts without warrant the constitutional rights of the accused and that it restricts interstate commerce by restraining the sale of such articles of commerce after they have reached this state without any valid reason for such restriction, I am convinced that the judgment of the court below should be reversed. *Jewett v. Smail*, 20 S. D. 232, 105 N. W. 738; *Brown v. Maryland*, 12 Wheat. 419, 6 L. Ed. 678; *Schollenberger v. Penn.*, 171 U. S. 1, 18 Sup. Ct. 757, 43 L. Ed. 49; *Cooke on the Commerce Clause*, § 91, and cases; also section 99, and cases.

MARSHALL, J.:

I concur in the dissenting opinion by Mr. Justice Timlin.

788 And afterwards, to wit; on the 22nd day of June, A. D. 1910, the following order was made in said cause by this Court:

Dane Circuit Court.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Ordered, that the record be retained in this court until July 10th, 1910.

In Supreme Court.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

I, Clarence Kellogg, Clerk of the Supreme Court of the State of Wisconsin, do hereby certify that the above and foregoing is a true and correct transcript of all the record and proceedings now on file and of record in my office with all things concerning the same in the above entitled cause.

That the original writ of error, the petition therefor and order allowing the same, the citation with its service endorsed thereon, the assignment of errors, certificate of lodgment, order as to original exhibits and a copy of the bond are appended to the return herein, and that they are all returned to the Supreme Court of the United States in obedience to the command of the writ of error hereto annexed.

In witness whereof, I have hereunto set my hand and affixed the seal of said court at Madison, this 28th day of July, A. D. 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
Clerk of Supreme Court, Wisconsin.

790 STATE OF WISCONSIN,
In Supreme Court:

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Assignment of Errors Made and Filed in the Supreme Court of the State of Wisconsin by the Above-named Plaintiff in Error, the Same Being Contained in the Brief of the Plaintiff in Error, as Provided by the Rules of said Supreme Court.

First. The trial court erred in convicting the defendant of any offense under the complaint and warrant herein, and in adjudging, that he pay a fine and costs thereunder.

Second. The trial court erred in not finding Chap. 557 Laws 1907, under which the defendant was tried, convicted and fined, void and of no effect, because in violation of Secs. 1, 8, 9 and 13, respectively, of Art. I of the Constitution of Wisconsin.

Third. The trial court erred in not finding Chap. 557 Laws 1907 void and of no effect because in violation of Sec. 1 of Art. IV of the Constitution of Wisconsin.

Fourth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect, because in violation of that part of Sec. 8, Art.

of the Constitution of the United States, known as the "commerce clause" of that constitution.

Fifth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect because in violation of Sec. 1 of the Fourteenth Amendment of the Constitution of the United States, in that it deprives the defendant of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

Sixth. The trial court erred in finding that the can or pail of "Karo Corn Syrup with Cane Flavor" sold by the defendant was not, at the time of such sale, an original unbroken package within the meaning of the Act of Congress known as the Food and Drugs Act of June 30, 1906, or Chap. 3915; 34 State L. 768.

Seventh. The trial court erred in finding that there is any fraud or deception upon the public or individual purchasers or consumers in selling the article in question herein as "Karo Corn Syrup with Cane Flavor".

H. O. FAIRCHILD,
Attorney for Plaintiff in Error.

792 [Endorsed:] State of Wisconsin, in supreme court. George McDermott, plaintiff in error, vs. State of Wisconsin, defendant in error. Assignment of Errors in State Supreme Court. Greene, Fairchild, North & Parker, attorneys for plaintiff, Green Bay, Wis.

793 In the Supreme Court of the State of Wisconsin.

GEORGE McDERMOTT, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

UNITED STATES OF AMERICA,
State of Wisconsin, in Supreme Court, ss:

I, Clarence Kellogg, clerk of the supreme court of the state of Wisconsin, do hereby certify that the paper writing hereto attached is a true and correct copy of the assignment of errors made and filed in the supreme court of the state of Wisconsin by said George McDermott, in the above entitled cause and is hereby transmitted to the supreme court of the United States in connection with and as a part of the transcript of the record in said cause.

And I do further certify that under the rules of said supreme court of the state of Wisconsin the errors assigned by the plaintiff in error in said court are contained in, and only contained in, the printed brief of said plaintiff in error. That in said cause in said supreme court of said state, said plaintiff in error did duly file his brief containing his assignments of error, and that the copy hereto annexed is a true and correct copy thereof.

In witness whereof I have hereunto set my hand and the seal of

the supreme court of the state of Wisconsin this 28 day of Jan 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
Clerk of the Supreme Court of the State of Wisconsin.

794 UNITED STATES OF AMERICA,
In Supreme Court:

GEORGE McDERMOTT, Plaintiff in Error,
vs.
THE STATE OF WISCONSIN, Defendant in Error.

It is Hereby Stipulated by and between the parties hereto that the entire record in this action, as transmitted, from the Supreme Court of the State of Wisconsin to the Supreme Court of the United States, shall be printed under the rules of said latter court, by the clerk thereof, except the exhibits numbered 38 to 129 inclusive, referred to in the bill of exceptions contained in said record—being advertisements of Karo Corn Syrup published in numerous newspapers and magazines—which exhibits are contained in a book marked on the front cover "Circuit Court. Dane County. Wisconsin. Filed April 17, 1909. Lawrence O. Larson, Clerk." and on the back "In Corn Products." It is further stipulated that in the argument and consideration of this cause in the Supreme Court of the United States reference may be made to such exhibits, as they are contained in said book, with the same force and effect and to the same extent as though each such exhibit had been printed with the remaining portions of the said record.

Dated this 8th day of October, 1910.

H. O. FAIRCHILD,
Attorney for Plaintiff in Error.
JOHN M. OLIN,
BURR W. JONES,
Attorneys for Defendant in Error.

795 [Endorsed:] Original. United States of America. In Supreme Court. T. H. Grady, plaintiff in error, vs. The State of Wisconsin, defendant in error. Stipulation 659—22,280.

796 [Endorsed:] File No. 22,280. Supreme Court U. S. October term, 1910. Term No. 659. George McDermott, pl'ff in error, vs. The State of Wisconsin. Stipulation to omit certain portions of the transcript of record in printing. Filed October 24, 1910.

Endorsed on cover: File No. 22,280. Wisconsin Supreme Court Term No. 112. George McDermott, plaintiff in error, vs. The State of Wisconsin. Filed August 1st, 1910. File No. 22,280.

(22,281)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1912.

No. 113.

T. H. GRADY, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

IN ERROR TO THE SUPREME COURT OF THE STATE OF WISCONSIN.

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1 To the Honorable John B. Winslow, Chief Justice of the Supreme Court of the State of Wisconsin, and to the other Justices of said Supreme Court:

The petition of T. H. Grady, plaintiff in error, respectfully represents as follows:

1. That he is a citizen of the United States of America, and of the state of Wisconsin, and that he resides in the village of Oregon, in the county of Dane, and state of Wisconsin.

2. Petitioner further represents that on or about May 7, 1908, a criminal proceeding was instituted against him, and he was arrested in the name of the state of Wisconsin on complaint and warrant in the municipal court of Dane County, state of Wisconsin, charging him with unlawfully having in his possession with intent to sell, and offering and exposing for sale and selling, a certain article, product, compound and mixture composed of more than 75 per cent glucose and less than 25 per cent of refiner's syrup, being then and there mixed with said glucose, and that the can containing said glucose and mixture was unlawfully branded and labeled "Karo Corn Syrup with Cane Flavor"; and was further then and there unlawfully branded and labeled "Corn Syrup 85%"; in violation of Chapter 557 of the Laws of Wisconsin for the year 1907, relative to the branding and sale of syrups, molasses and glucose.

3. Said cause coming on for trial on May 19, 1908, in municipal court, your petitioner upon being called for arraignment, moved that the complaint against him be dismissed and that he be discharged on the ground that the complaint and warrant state no offense known to the law, and that the said statute upon which
2 the proceeding is based is void, because it violates Article I, Sections 1, 8 and 9 of the constitution of Wisconsin, and Section 8 of Article I, and the fourteenth amendment of the constitution of the United States, known as the commerce clause of the constitution, and the clause which forbids state legislation denying the equal protection of the laws and denying due process. These motions were denied by the said municipal court.

4. Thereupon your petitioner being arraigned stood mute and a plea of not guilty was entered by the court. Thereupon your petitioner waived trial by jury. The court then proceeded to the trial, your petitioner offering no evidence, and your petitioner was found guilty of the offense alleged in the complaint and adjudged to pay a fine of \$25.00 and \$19.18 costs, and that in default of payment of such fine and costs your petitioner be committed to the county jail of Dane county, aforesaid, at hard labor, until such fine and costs are paid, not exceeding thirty days.

5. Thereupon your petitioner appealed from such judgment against him to the circuit court of Dane county, Wisconsin, and gave his bail thereon, as required by law, for his appearance in said circuit court.

6. Said cause coming on for trial on appeal before said circuit court on December 27, 1908, your petitioner appeared in person and

by his attorney, H. O. Fairchild, Esq., and waived trial by jury of such cause, and entered into a stipulation with the State of Wisconsin, which appeared by John M. Olin, Esq., that said case and a substantially similar case brought by the State of Wisconsin against one George McDermott, be tried together, and that the testimony taken in open court shall be regarded as testimony taken in each case—which trial was ordered by the court accordingly, and thereupon the said circuit court proceeded to the trial of said actions together.

7. Your petitioner on said trial before the circuit court admitted the sale, as charged, but expressly contended in and before said circuit court that the act under which the said prosecution is had, to-wit, said Chapter 557 of the Laws of Wisconsin for the year 1907, is invalid upon the grounds and for the reasons specifically set out in the assignment of errors hereto attached.

8. That the said circuit court sustained the validity of said act and the complaint and warrant thereunder, and the trial being concluded, the said court, on April 26, 1909, entered judgment against your petitioner convicting him of the offense of which he was charged in the complaint and warrant, and adjudging that he pay a fine of \$25.00 and costs of the action taxed at \$51.71, and that in default of payment of such fine and costs your petitioner be committed to the county jail of Dane County, aforesaid, at hard labor, until such fine and costs are paid, not exceeding thirty days.

9. Thereupon your petitioner removed said cause to the supreme court of the state of Wisconsin on writ of error, wherein your petitioner was and is designated as plaintiff in error and the said State of Wisconsin as defendant in error, and your petitioner assigned as error in said supreme court the following:

First. The trial court erred in convicting the defendant of any offense under the complaint and warrant herein, and in adjudging that he pay a fine and costs thereunder.

Second. The trial court erred in not finding Chap. 557 Laws 1907, under which the defendant was tried, convicted and fined, void and of no effect, because in violation of Secs. 1, 8, 9 and 13, respectively, of Art. I of the Constitution of Wisconsin.

Third. The trial court erred in not finding Chap. 557 Laws 1907 void and of no effect because in violation of Sec. 1 of Art. IV of the constitution of Wisconsin.

Fourth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect, because in violation of that part of Sec. 8, Art. I of the constitution of the United States, known as the "commerce clause" of that constitution.

Fifth. The trial court erred in not finding Chap. 557, Laws 1907, void and of no effect because in violation of Sec. 1 of the fourteenth amendment of the constitution of the United States, in that it deprives the defendant of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

Sixth. The trial court erred in finding that the can or pail of "Karo Corn Syrup with Cane Flavor" sold by the defendant was

not, at the time of such sale, an original unbroken package within the meaning of the Act of Congress known as the Food and Drugs Act of June 30, 1906, or Chap. 3915; 34 Stats. L. 768.

Seventh. The trial court erred in finding that there is any fraud or deception upon the public or individual purchasers or consumers in selling the article in question herein as "Karo Corn Syrup with Cane Flavor."

10. Said cause coming on for hearing before the supreme court of the state of Wisconsin, at the January term thereof for the year 1910, was duly argued and submitted on the part of your petitioner and the said State of Wisconsin, upon the assignment of errors aforesaid.

11. That on the 24th day of May, 1910, said supreme court of the state of Wisconsin overruled said assignments of error and affirmed the judgment and sentence of the said circuit court for Dane County, and the majority of said court filed a written opinion setting forth the grounds upon which the judgment of the said circuit court was by said supreme court affirmed, to which said opinion on file with the clerk of said supreme court of the state of Wisconsin reference is hereby made, and said supreme court then and there rendered final judgment in said cause in favor of said State of Wisconsin and against your petitioner.

12. Your petitioner further shows that the said decision and final judgment of the said supreme court of the state of Wisconsin draw in question the validity of a statute of the United States, and the said decision is against its validity.

Your petitioner further shows that said decision and final judgment as aforesaid draw in question the validity of a statute of the state of Wisconsin, on the ground of said statute being repugnant to the constitution and the laws of the United States, and the said decision is in favor of the validity of said statute of the state of Wisconsin.

Your petitioner further represents that in said cause he specially set up and claimed a title, right, privilege and immunity under the constitution of the United States, and under a statute of said United States, and the said decision is against the title, right, privilege and immunity so specially set up and claimed by your petitioner under such constitution and statute of the United States.

13. Your petitioner further represents that the decision and judgment in the aforesaid cause in the supreme court of the state of Wisconsin is a final judgment in the highest court of the state of Wisconsin in which a decision in said cause might be had, and your petitioner complains that in the record and proceedings had in said cause, and also in the rendition of said final judgment and decision in said supreme court of the state of Wisconsin against your petitioner, manifest error has happened, to the great damage of your petitioner, all of which will more in detail appear from the assignment of errors filed with this petition.

Wherefore your petitioner prays that a writ of error from the Supreme Court of the United States to the supreme court of the state of Wisconsin may be allowed by the honorable chief justice of

the supreme court of the state of Wisconsin, to bring up for review before the Supreme Court of the United States the said final judgment and decision of said supreme court of the state of Wisconsin, to the end that the said final judgment may be re-examined and reversed; that said honorable chief justice issue a citation on said writ of error, and fix the amount of a supersedeas bond, and that a transcript of the record, proceedings and papers in said cause, duly authenticated, may be sent to the Supreme Court of the United States; and that your petitioner may have such other and further relief in the premises as may be just; and your petitioner will ever pray.

Dated this 8th day of July, 1910.

H. O. FAIRCHILD,

*Attorney for T. H. Grady, the
Above-named Plaintiff in Error.*

Let the writ of error issue as prayed for in the above and foregoing petition, upon the execution of a bond by said T. H. Grady in the sum of \$500.00, such bond when approved to act as a supersedeas.

Dated this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,

*Chief Justice of the Supreme Court of
the State of Wisconsin.*

8 [Endorsed:] Original. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Petition for Writ of Error. Filed Jul-8, 1910, Clarence Kellogg, Clerk of Supreme Court, Wis.

9 In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

This 8th day of July, 1910, came T. H. Grady, the plaintiff in error, by his attorney, and filed herein and presented to me his petition praying that a writ of error from the Supreme Court of the United States to the Supreme Court of the State of Wisconsin may be allowed to bring up for review before the Supreme Court of the United States, the final judgment and decision of said Supreme Court of the State of Wisconsin in the cause therein mentioned, and that a citation issue and the amount of a supersedeas bond be fixed and that a transcript of the record, proceedings and papers in said cause, duly authenticated, may be sent to the Supreme Court of the United States, and that such other and further proceedings may be had as may be proper in the premises.

In consideration whereof it is ordered, that a writ of error herein be and is hereby allowed upon the said T. H. Grady, plaintiff in

error, giving bond according to law in the sum of five hundred (\$500) dollars, which bond, when approved, shall act as a superseedeas.

Witness the Honorable John B. Winslow, Chief Justice of the Supreme Court of the State of Wisconsin, this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
Chief Justice of the Supreme Court
of the State of Wisconsin.

10 [Endorsed:] Original. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Order Allowing Writ of Error. Filed Jul- 8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

11 UNITED STATES OF AMERICA, ss:

The President of the United States of America to the Honorable the Justices of the Supreme Court of the State of Wisconsin, Greeting:

Because in the record and proceedings, as also in the rendition of the judgment of a plea which is in the said supreme court of the state of Wisconsin, before you, or some of you, being the highest court of law of the said state of Wisconsin in which a decision could be had in the said suit, between T. H. Grady, plaintiff in error, and the State of Wisconsin, defendant in error, wherein was drawn in question (1) the validity of a statute of the United States, and the decision was against its validity; (2), and wherein was drawn in question the validity of a statute of said state of Wisconsin, on the ground of its being repugnant to the constitution and laws of the United States, and the decision was in favor of its validity: and (3) wherein the said T. H. Grady, plaintiff in error, set up and claimed a title, right, privilege and immunity under the constitution of the United States and under a statute of the United States, and the said decision was against the title, right, privilege and immunity so specially set up and claimed under such constitution and statute; a manifest error hath happened to the great damage of the said T. H. Grady, plaintiff in error, as by his complaint appears.

We being willing that error, if any hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment be therein given, that then under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, 12 to the supreme court of the United States, together with this writ, so that you have the same in the said supreme court at Washington, D. C. within thirty days from the date hereof, that the record and proceedings aforesaid being inspected, the said supreme court may cause further to be done therein to correct that error what of right, and according to the laws and customs of the United States, should be done.

T. H. GRADY VS. THE STATE OF WISCONSIN.

Witness the Honorable Melville W. Fuller, chief justice of the United States, this 8th day of July, in the year of our Lord one thousand nine hundred and ten.

[Seal U. S. Circuit Court, Western Dist. of Wisconsin,
Madison.]

F. W. OAKLEY,
*Clerk of the Circuit Court of the United
States for the Western District of Wis-
consin,*

By F. D. REED, *Deputy.*

Allowed by me this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

13 STATE OF WISCONSIN,
Supreme Court, ss:

The Return to the within writ appears by the schedule hereto annexed.

The return of the Justices of the Supreme Court of the State of Wisconsin.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG, *Clerk.*

14 [Endorsed:] Original. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Writ of Error. Filed Jul- 8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

15 UNITED STATES OF AMERICA, *ss:*

The President of the United States to the State of Wisconsin, Greeting:

You are hereby cited and admonished to be and appear at and before the Supreme Court of the United States, at Washington, D. C., within 30 days from the date hereof, pursuant to a writ of error, filed in the office of the Clerk of the Supreme Court of the State of Wisconsin, wherein T. H. Grady is plaintiff in error, and you are defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error, as in the said writ of error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable John B. Winslow, Chief Justice of the

Supreme Court of the State of Wisconsin, this 8th day of July, in the year of our Lord, One thousand nine hundred and ten.

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

Attest:

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
Clerk of the Supreme Court of the State of Wisconsin.

16 In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Due and personal service is admitted this 9th day of July, 1910, of the foregoing attached citation, upon the undersigned attorneys for the State of Wisconsin, the said defendant in error.

F. L. GILBERT,
*Attorney General and Attorney for
said State of Wisconsin.*
JOHN M. OLIN,
*Special Counsel and Attorney for
said State of Wisconsin.*
H. L. BUTLER,
*Special Counsel and Attorney for
said State of Wisconsin.*

17 In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Jerome R. North is hereby authorized and deputized to serve the foregoing and attached citation upon said defendant in error, the state of Wisconsin, by delivering to and leaving with the Governor of said state and the Attorney General of said state, a true copy of said citation, and is authorized to serve said citation upon the attorneys for said defendant in error by delivering to and leaving with one of them, personally, a true copy of said citation.

Dated Madison, Wis., July 8th, 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

18 In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

STATE OF WISCONSIN,
Dane County, ss:

Jerome R. North being first duly sworn on oath states that he is an attorney at law residing at Green Bay, Wisconsin, and authorized by the attached authorization to make service of the foregoing citation and that on the 9th day of July, 1910, at the city of Madison, Dane County, and state of Wisconsin, he personally served the citation in the above entitled cause hereto annexed on the attorneys for said state of Wisconsin, the defendant in error, by then and there delivering to H. L. Butler, Esq. personally, and leaving with him a true copy of said citation, said H. L. Butler being then and there one of the attorneys of record for said defendant in error in said cause. The deponent further states that on the 13th day of July, 1910, at said city of Madison, he served said citation on said defendant in error, the state of Wisconsin, by then and there delivering to the Governor of said state to wit, the Hon. James O. Davidson, personally, and leaving with him a true copy of said citation, and that on the 9th day of July, 1910, at said city he delivered to and left with Frank L. Gilbert, Esq., the Attorney General of said state, a true copy of said citation.

JEROME R. NORTH.

Subscribed and sworn to before me this 13th day of July, 1910.

[Seal Arthur A. McLeod, Notary Public, Dane County, Wis.]

ARTHUR A. McLEOD,
Notary Public, Dane County, Wisconsin.

My Commission Expires September 10, 1911.

19 [Endorsed:] Original: In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Citation and Proofs of Service. Filed Jul- 13, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

20

In the Supreme Court of the State of Wisconsin.

T. H. GRADY, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

Bond on Writ of Error from the Supreme Court of the United States.

Know all men by these presents, that we, T. H. Grady, of Oregon, Dane County, Wisconsin, as principal, and The American Bonding Company of Baltimore as surety, are held and firmly bound unto the above named State of Wisconsin, in the sum of five hundred (\$500) dollars, to be paid to the said State of Wisconsin, for the payment of which well and truly to be made, we bind ourselves and each of us, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Sealed with our seals and dated this 8th day of July, in the year of our Lord One thousand nine hundred and ten.

Whereas, the above named T. H. Grady hath prosecuted a writ of error to the supreme court of the United States to reverse the judgment entered in the above entitled suit by the supreme court of the state of Wisconsin;

Now, therefore, the condition of this obligation is such, that if the above named T. H. Grady shall diligently prosecute his said writ of error and abide the judgment and sentence of the court thereon, and in the meantime shall keep the peace and be of good behavior, then this obligation shall be null and void; otherwise the same shall be and remain in full force and virtue.

T. H. GRADY, [SEAL.]
AMERICAN BONDING COMPANY OF
BALTIMORE,

By A. D. McCONNELL,
Local Vice-President.

Attest:

HENRY H. MORGAN,
Local Ass't Secretary.

Signed, Sealed and Delivered, in Presence of

JEROME R. NORTH.
C. E. REEDS.

[CORPORATE SEAL.]

This bond is approved by me this 8th day of July, 1910, and the same shall act as a supersedeas.

(Signed)
[SEAL.]

JOHN B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

22 [Endorsed:] Copy. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Bond on Writ of Error.

23

STATE OF WISCONSIN,
DEPARTMENT OF INSURANCE.

The American Bonding Company located at Baltimore, in the state of Maryland, having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications required by the laws of the state of Wisconsin, relating to the Suretyship Corporations, and having complied with said laws,

Now therefore, this is to certify that said company has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1911, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin this 26th day of February, A. D. 1910.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, George E. Beedle, Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 51, issued to the American Bonding Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin this 8th day of July, A. D. 1910.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

24

In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,

vs.

THE STATE OF WISCONSIN, Defendant in Error.

Assignment of Errors.

And now comes into the supreme court of the United States, said T. H. Grady, plaintiff in error, in the above entitled cause, and makes and files this his assignment of errors, and says that in the final judgment, record and proceedings in the said action below, there is manifest error in this, to wit:

I. The supreme court of the state of Wisconsin erred in affirming the judgment of the circuit court of Dane County, in said state of Wisconsin.

II. The supreme court of the state of Wisconsin erred in not by its final judgment in the said action below reversing the judgment of the circuit court for Dane County, Wisconsin, and discharging said plaintiff in error.

III. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in not finding chapter 557 of the Laws of the state of Wisconsin for the year 1907—under which the plaintiff in error is prosecuted—invalid because repugnant to that part of section 8 of Article I of the constitution of the United States, known as the “commerce clause” of said constitution.

25 IV. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in not finding said chapter 557 invalid because repugnant to section 1 of the fourteenth amendment of the constitution of the United States, in that it deprives the plaintiff in error of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

V. The supreme court of the state of Wisconsin erred in not holding by its final judgment in the said action below, said chapter 557 invalid as repugnant to the fourteenth amendment of the constitution of the United States, because unreasonable, misleading and deceptive in requiring the use of the name “glucose” in designating, on the label therein referred to, the name of the mixture, sold by the plaintiff in error, while requiring the name “corn syrup” in designating on such label the same principal ingredient in such mixture—such latter designation being that defined in the standards of purity of food products as latest promulgated by the United States Secretary of Agriculture.

VI. The supreme court of the state of Wisconsin in and by its final judgment in the said action below erred in not finding said chapter 557 invalid as repugnant to the fourteenth amendment of the constitution of the United States for the further reason that said statute is indefinite, uncertain and fluctuating as to what acts constitute a violation of the statute, and because resort must be had to sources outside the statute itself, to wit, to the records of the office of the Secretary of Agriculture of the United States, by persons affected by the statute, to ascertain what acts constitute an offense under the statute.

26 VII. The supreme court of the state of Wisconsin, in and by its final judgment in the said action below, erred in finding that the sale of “Karo Corn Syrup with Cane Flavor,” made by the plaintiff in error, was not of an article of interstate commerce and within the purview and regulated by the provisions of the Act of Congress, known as the “Food and Drugs Act of June 30, 1906”, or chapter 3915 of Volume 34 of the United States Statutes at Large, page 768.

VIII. The supreme court of the state of Wisconsin erred in not deciding by its final judgment in the said action below, that said chapter 557 of the Laws of Wisconsin for 1907, is invalid, even as to the domestic commerce within the state of Wisconsin, in the food products designated in said chapter 557 because said chapter 557 is an attempted regulation by one inseparable clause of the act, accomplishing all its results by the same general words, of both such domestic and interstate commerce in such food products, after the Congress had, by said Food and Drugs Act of 1906, fully covered

the subject of such interstate commerce by specific regulations in conflict with the regulations of said chapter 557.

IX. The supreme court of the state of Wisconsin by its final judgment in the said action below erred in deciding that the sale by the plaintiff in error, as is complained of against him, was not within the provisions of said Food and Drugs Act of Congress of 1906, or protected or regulated thereby, for the reason that such Act of Congress has no reference to and does not cover sales of the food products therein designated in the original package by the person or persons introducing such product into one state from another state.

X. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in finding that the sale of the article in question by plaintiff in error was not under the protection of the interstate commerce clause of the constitution of the United States.

XI. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in holding that chapter 557 of the Laws of Wisconsin of 1907, is valid as a police regulation of the state of Wisconsin, although the same is in conflict with the said "commerce clause" of the federal constitution and the fourteenth amendment of said constitution and in conflict with said Act of Congress of June 30, 1906.

XII. The supreme court of the state of Wisconsin, by its final judgment in the said action below, erred in finding that there was any fraud or deception upon the public, individual purchasers or consumers in selling the article in question herein as "Karo Corn Syrup with Cane Flavor."

XIII. The circuit court of Dane County, in said state of Wisconsin, erred in not dismissing the complaint and warrant therein against the plaintiff in error, on the ground that said chapter 557 is invalid for each and every of the reasons and errors hereinbefore assigned against the said final judgment of the supreme court of the state of Wisconsin.

And the plaintiff in error, T. H. Grady, therefore prays that the said decision, final judgment and findings of the supreme court of the state of Wisconsin be reversed because of the aforesaid errors and because of other errors in the record and proceedings in the above entitled cause. And the said plaintiff in error, T. H. Grady, further prays that the said judgment and findings of the circuit court for Dane County, Wisconsin, be reversed by the supreme court of the United States because of errors hereinabove assigned and because of other errors in said record and proceedings.

28 And said plaintiff in error, T. H. Grady, herewith files his petition for a writ of error from the supreme court of the United States to the supreme court of the state of Wisconsin, to the end that the said final judgment, record and proceedings in said cause may be brought before the said supreme court of the United States for review as provided by law in such cases.

H. O. FAIRCHILD,
Attorney for said Plaintiff in
Error, T. H. Grady.

The aforesaid assignments of error were duly presented to me this 8th day of July, 1910, before allowing the writ of error in such cause of even date.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
 of the State of Wisconsin.*

29 [Endorsed:] Original. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Assignment of Errors. Filed Jul- 8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

30 STATE OF WISCONSIN:

In Supreme Court.

T. H. GRADY, Plaintiff in Error,
 vs.
 STATE OF WISCONSIN, Defendant in Error.

It appearing that said T. H. Grady has sued out a writ of error from the Supreme Court of the United States to the Supreme Court of Wisconsin, to reverse the judgment heretofore entered in said cause in this court, and it being necessary and proper in my opinion that the following original papers should be inspected in the Supreme Court of the United States upon said writ of error.

It Is Ordered that the following original papers be transmitted by the clerk of this court to the clerk of the Supreme Court of the United States in connection with the transcript of proceedings herein, and that said original papers be safely kept by the clerk of said supreme court of the United States until thirty days after the decision of said Supreme Court of the United States upon said writ of error, and that they then be returned to the clerk of this court. The original papers so ordered to be sent up, are exhibits 38 to 129, both inclusive, and are contained in a book marked on the front cover "Circuit court, Dane County, Wisconsin, Filed April 17, 1909, Lawrence O. Larson, Clerk", and on the back "16 Corn Products"—said book now being in the custody of the clerk of this court as part of the record herein.

It is Further Ordered that the following exhibits of material forming part of the evidence taken in the court below—the same consisting of various bottles and cans of samples—and now
 31 being in the custody of the clerk of this court, be transmitted by the clerk of this court to the marshal of the supreme court of the United States at least one month before said writ of error is heard in said court, and that they be retained by said marshal until thirty days after the decision on said writ of error—for the inspection of the court on the hearing of such case.

The following are the exhibits in this case, last hereinbefore re-

ferred to, and so ordered to be sent to said marshal, to wit: Exhibits B, C, D, E, F, 1, 1-b, 1-c, 1-d, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 37, 156 and 160.

Dated July 8th 1910.

[Seal Supreme Court of Wisconsin.]

JNO. B. WINSLOW,
*Chief Justice of the Supreme Court
of the State of Wisconsin.*

32 [Endorsed:] Original. State of Wisconsin, in Supreme Court. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Order as to Original Exhibits. H. O. Fairchild, Attorneys for Pl'ff in Error, Green Bay, Wis. Filed Jul-8, 1910. Clarence Kellogg, Clerk of Supreme Court, Wis.

33 In the Supreme Court of the United States.

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Certificate of Lodgment.

SUPREME COURT,
State of Wisconsin, ss:

I, Clarence Kellogg, clerk of the supreme court of the state of Wisconsin, do hereby certify that there was lodged with me, as such clerk, on the 8th day of July, 1910, in the matter of T. H. Grady, plaintiff in error, against the State of Wisconsin, defendant in error, the following:

1. The original bond, of which a copy is herewith set forth;
2. Two copies of the writ of error as herein set forth; one for said defendant in error and one to file in my office.

In Witness Whereof I have hereunto set my hand and the seal of said court this 8th day of July, 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
*Clerk of the Supreme Court
of the State of Wisconsin.*

34 [Endorsed:] Original. In the Supreme Court of the United States. T. H. Grady, Plaintiff in Error, vs. State of Wisconsin, Defendant in Error. Certificate of Lodgment.

35 Pleas before the Supreme Court of the State of Wisconsin at a term thereof begun and held at the Capitol, in Madison, the seat of government of said State, on the second Tuesday, to-wit, the eleventh day of January, A. D. 1910.

Present:

John B. Winslow, Chief Justice.

Roujet D. Marshall,

Joshua Eric Dodge,

Robert G. Siebecker,

James C. Kerwin,

William H. Timlin,

John Barnes,

Justices.

Clarence Kellogg, Clerk.

Be it remembered that heretofore, to-wit on the tenth day of August in the year of our Lord One Thousand Nine Hundred and Nine came into the office of the Clerk of the Supreme Court of the State of Wisconsin, T. H. Grady, by his attorney, and filed in said court his certain Writ of Error, according to the statute in such case made and provided, and also the return to such writ of the Clerk of the Circuit Court of Dane County, in said State, in words and figures following, that is to say:

36 STATE OF WISCONSIN:

Supreme Court, ss:

The State of Wisconsin to the Judge of the Circuit Court of the County of Dane, in said State, Greeting:

Because, in the record and proceedings, and also in the rendition of judgment, in a suit which was duly tried in the Circuit Court of Dane County aforesaid, before you, between The State of Wisconsin, Plaintiff, and T. H. Grady, Defendant, in a criminal action for the violation of chapter 557 of the Laws of Wisconsin for 1907, manifest error hath intervened to the great damage of the said T. H. Grady as by his complaint we are informed.

And we being willing that the error, if any there be, should in due manner be corrected and full and speedy justice done to the parties aforesaid, do command you, that if judgment be thereupon given, then you send to the judges of the Supreme Court of the State of Wisconsin, distinctly and openly, under your seal, with all convenient dispatch, a transcript of the record and proceedings of the suit aforesaid, with all things concerning the same, and this writ, so that they may have the same at the next term of our said Supreme Court, to be held at Madison, in the State aforesaid, on the Tenth day of August, Anno Domini one thousand nine hundred and nine that the record and proceedings aforesaid, being inspected, we may cause to be further done, for correcting that error, what of right, and according to law and the rules of our said Court, ought to be done.

Witness, the Hon. John B. Winslow, Chief Justice of the Su-

prame Court of the State of Wisconsin, at Madison, this 26th day of April, A. D. 1909.

Attest:

[SEAL.]

CLARENCE KELLOGG, *Clerk.*

37 (Endorsements:) State of Wisconsin, Supreme Court.
State of Wisconsin against T. H. Grady. Writ of Error.
Filed; Jul- 25, 1909, Circuit Court Dane County, Wis. Lawrence
O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk
of Supreme Court, Wis.

38

State of Wisconsin.

Department of Insurance.

The American Bonding Company, located at Baltimore in the state of Maryland, having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications required by the laws of the state of Wisconsin relating to Suretyship Corporations, and having complied with said laws,

Now, therefore, This is to Certify that said company, has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1910, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin, this Fifth day of March, A. D. 1909.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, H. L. Ekern, Deputy Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 45 issued to the American Bonding Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin, this 4th day of August, A. D. 1909.

[SEAL.]

H. L. EKERN,
Deputy Commissioner of Insurance.

39

State of Wisconsin.

Department of Insurance.

Whereas, The American Bonding Company of Baltimore located at Baltimore in the State of Maryland having complied with the laws of this State, applicable to companies transacting business as surety on obligations of persons or corporations, is licensed to transact the business of Surety insurance in this State until the first day of March 1910.

Now, therefore, I Geo. E. Beedle, Commissioner of Insurance of the State of Wisconsin, in pursuance of the laws thereof, do hereby

license Henry H. Morgan of Madison in the County of Dane as Agent of the aforesaid Company to transact its business in this State, according — law, so far as he may be empowered by his letter of appointment from said Company, until the first day of March, A. D. 1910.

Witness my hand and official seal, at Madison, Wisconsin, this 1st day of March A. D. 1909.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

40

Dane County Circuit Court.

STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

Know all men by these presents, that T. H. Grady as principal, and American Bonding Company of Baltimore, Maryland, as surety, are jointly and severally firmly bound unto the state of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), good and lawful money of the United States of America, for the payment of which by them well and truly to be made they jointly and severally bind themselves and each of them, subject to the conditions hereinafter stated, that is to say:

Whereas, the said T. H. Grady was, on the 26th day of April, 1909, duly convicted by and before the circuit court for the county of Dane in said state of Wisconsin of a violation of the provisions of chapter 557 of the laws of Wisconsin for 1907, and upon such conviction adjudged and sentenced to forthwith pay a fine of Twenty-five Dollars (\$25.00), together with the costs of the action, amounting in all to the sum of Fifty-one Dollars and Seventy-one cents, (\$51.71), and in default of such payment to be imprisoned in the county jail of said county of Dane until such fine and costs be paid, not exceeding sixty days and

Whereas, the said T. H. Grady feeling himself aggrieved by such judgment and sentence of the court, has sued out of the supreme court of this state a writ of error, returnable to said court at the next term thereof, to be held on the 10th day of August, 1909, to review such judgment and sentence and correct the same if it be not according to law; and

41 Whereas the said circuit — for the county of Dane did, on said 26th day of April, 1909, make its order staying the execution of such judgment and sentence until the final hearing and decision of the said action in the said supreme court under said writ of error, in case the said T. H. Grady file in said court his bond, with a sufficient surety, to the state of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), approved by the court, conditioned upon the said T. H. Grady appearing in said supreme court during the said next term thereof and prosecuting the said action to a final decision and judgment under such writ of error and abiding the judgment and sentence of the said

court thereon, and in the meantime keeping the peace and being of good behavior;

Now therefore, the condition of the foregoing obligation is such that if the said T. H. Grady shall appear in the said supreme court at the next term thereof, to be held on the 10th day of August 1909, and prosecute the said cause to a final decision and judgment in said court under such writ of error, and abide the judgment and sentence of the said court thereon, and in the meantime keep the peace and be of good behavior, then and in that case the above obligation shall be void and of no effect, otherwise the same shall be and remain in full force and effect.

Dated this 26th day of April, 1909.

T. H. GRADY, [SEAL.]
[CORPORATE SEAL.] AMERICAN BONDING COMPANY
OF BALTIMORE,
By A. D. McCONNELL,

Local Vice President.

Done in the Presence of
H. O. FAIRCHILD.

Attest:

HENRY H. MORGAN, *Local Ass't Secretary.*

42 (Endorsements:) Circuit Court Dane County. State of Wisconsin, Plaintiff, vs. T. H. Grady, Defendant. Bond. Surety herein and bond are approved. April 26th, 1909. By the Court, E. Ray Stevens, Judge. Filed: Apr. 26, 1909, Circuit Court, Dane County, Wisconsin, Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg Clerk of Supreme Court of Wisc.

43 STATE OF WISCONSIN,
City of Madison and County of Dane, ss:

In Municipal Court.

H. C. Larson being duly sworn and examined, on oath, complains to the Municipal Court of the City of Madison, and County of Dane, that on the 2nd day of March, 1908, at the Village of Oregon, County of Dane, and State of Wisconsin, T. H. Grady did unlawfully have in his possession with intent to sell, and did offer and expose for sale and did sell, a certain article, product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of refiner's syrup, said refiner's syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labeled "Karo Corn Syrup with Cane Flavor," and was then and there further unlawfully branded and labeled "Corn Syrup 85%," contrary to the statute in such case made and provided, as said deponent verily believes, and prays that the said T. H. Grady may be arrested and dealt with according to law.

H. C. LARSON.

Subscribed and sworn to before me this 7th day of May, 1908.

F. E. CURRIER,

Clerk of the Municipal Court, Dane County, Wisconsin.

(Endorsements:) In Municipal Court, City of Madison and County of Dane. State of Wisconsin against T. H. Grady, Complaint. Filed this 7th day of May A. D. 1908, F. E. Currier Clerk of the Municipal Court for Dane County, Wis. Filed: Circuit Court Dane County, Wis., Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk Supreme Court, Wis.

44 STATE OF WISCONSIN,

City of Madison and County of Dane, ss:

In Municipal Court.

The State of Wisconsin to the Sheriff, Policeman or any Constable of said County:

Whereas, H. C. Larson has this day complained in writing to the Municipal court for the County of Dane, Wisconsin, on oath, that on the 2nd day of March A. D. 1908, at the Village of Oregon, in said county, T. H. Grady did unlawfully have in his possession with intent to sell and did offer and expose for sale and did sell a certain article product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of refiners' syrup, said refiners' syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labelled "Karo Corn Syrup with "Cane Flavor", and was then and there further unlawfully branded and labeled "Corn Syrup 85%," against the peace, and contrary to the statutes in such case made and provided, and prayed that the said T. H. Grady might be arrested and dealt with according to law.

Now, therefore, In the name of the State of Wisconsin, you are commanded forthwith to apprehend the said T. H. Grady and to bring him before the said Municipal court to be dealt with according to law.

Witness, the Honorable Anthony Donovan, Municipal Judge of said County, at Madison, the 7th day of May, in the year of our Lord one thousand nine hundred and eight.

[SEAL OF MUNICIPAL COURT.]

F. E. CURRIER,

Clerk of the Municipal Court.

(Endorsements:) Criminal Warrant "A". Municipal Court for the County of Dane, Wisconsin. The State of Wisconsin against T. H. Grady. Dane County, ss. The within warrant executed by arresting the within named T. H. Grady and have him in custody now before the Court.

44½

Fees.

Arrest	\$.25,
Mileage, 24 M.	2.40,
Conveying prisoner50,
Committing50,
Attending Court75,
	<hr/>
	\$4.40

Dated this 8th day of May, A. D. 1908, G. M. Kanouse Deputy Sheriff. Filed this 8th day of May, A. D. 1908. F. E. Currier, Clerk of the Municipal Court, Madison, Wis. Filed: June 3 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44a

Recognizance.

STATE OF WISCONSIN,

City of Madison and County of Dane, ss:

In Municipal Court.

THE STATE OF WISCONSIN
against
T. H. GRADY.

I, T. H. Grady, hereby give bail in the sum of One Hundred Dollars, for the appearance of myself on the 19th day of May A. D. 1908, at 10 o'clock A. M. before the Municipal court of said county and City, held in said City, at the Dane County Court House, to answer to a criminal prosecution for selling syrup unlawfully labeled and from time to time and from day to day thereafter until discharged by law.

Dated May 8th, A. D. 1908.

T. H. GRADY.

(Endorsements:) Municipal Court City of Madison and County of Dane. State of Wisconsin against T. H. Grady. Recognizance. Filed May 8 A. D. 1908, F. E. Currier, Clerk of the Municipal Court. Filed: June 3, 1908, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

446

STATE OF WISCONSIN
against
T. H. GRADY.

Complaint for Selling Syrup Unlawfully Branded & Labeled.

H. C. Larson, Complainant.

Vroman Mason & John M. Olin, Att'ys for State.

H. O. Fairchild, Att'y for Deft.

1908, May 7th.—On examining Complainant on oath and reducing the same to writing warrant issued by the order of the Court, returnable forthwith and delivered to G. M. Kanouse, Deputy Sheriff.

1908, May 8th.—Warrant returned, defendant arrested and in custody now before the Court. Fees. Arrest .25, travel 24 m. 2.40, conveying prisoner .50, Committing 50, attending court .75, total 4.40, G. M. Kanouse, Deputy sheriff. Defendant brought up on the order of the Court and duly arraigned and he waived the reading of the complaint herein and pleaded not guilty thereto, and by agreement between the parties the case was continued for cause shown until the 19th day of May, A. D. 1908 at 10 o'clock A. M. at the Municipal Court Room in the Dane County Court House. The Court fixed the bail at One Hundred Dollars for the appearance of the said defendant on the 19th day of May A. D. 1908 at 10 o'clock A. M. at the above stated place. The court allowed the defendant to sign his own recognizance and he was released from custody to abide the order of the Court herein.

1908, May 19th, 10 o'clock A. M.—Case called, parties present and defendant in court by his attorney, John Moran and by agreement between the parties the case was continued until 2 o'clock P. M. this 19th day of May A. D. 1908, at the Municipal Court Room in the Dane County Court House.

2 o'clock P. M.—Case called. Parties present and defendant in Court. The Court appointed Alma B. Roump, stenographer, to report the case, and she was duly sworn to do so to the best 44c of her ability.

Now comes H. O. Fairchild, attorney for the defendant and made motion to withdraw the defendant's plea of not guilty for the purpose of making a motion to dismiss. Motion granted. Plea of not guilty withdrawn. Thereupon the defendant's attorney made motion that the complaint be dismissed and the defendant discharged, on the ground that the complaint and warrant states no offense known to the law and that the statute upon which the proceeding is based is void. First, because it violates *one* Section one and sections eight and nine of Article eight of the Constitution of the State of Wisconsin, and section eight of Article one and the fourteenth amendment of the Constitution of the United States, known as the commerce clause of the Constitution and the clause of the Constitution which forbids the statute legislation denying equal protection of the law and denying two provisions. Motion denied. The defendant was duly arraigned, and he waived the reading of the Complaint, and as far as the plea was concerned stood mute.

Thereupon the Court entered a plea of not guilty for the defendant. The defendant waived a trial by jury. Trial begun by the Court and the following witnesses were duly sworn on behalf of the State: H. C. Larson, Richard Fischer. State rests. The defendant's attorney stated to the Court that the defendant did not wish to introduce any testimony. Defendant rests. Case submitted to the Court. Thereupon the Court finds the defendant guilty of the offense as alleged against him in the complaint herein and adjudges and determines that he be punished by the payment of a fine of Twenty-five dollars together with the costs of this action, taxed at \$17.88, and in default of the payment of said fine and costs, that 44d he be committed to the common jail of Dane County at hard labor until the said fine and costs are paid, not to exceed Thirty days. I. E. Kittleston, Sheriff, Attending Court, 75.

Now comes the defendant and files his written notice of appeal from the judgment and sentence herein to the Circuit Court of Dane County, Wisconsin. (See notice of appeal on file.) The Court fixed the bail at One Hundred Dollars for the appearance of the said defendant before the Circuit Court of Dane County, Wisconsin, upon the opening of the October Term thereof upon the 12th day of October, A. D. 1908, at 10 o'clock A. M. The defendant having given satisfactory bail was released from custody to abide the order of the said Circuit Court herein.

The Court ordered that the case with all the papers herein be sent to the Circuit Court for Dane County, Wisconsin.

Witness Fees.

H. C. Larson, two $\frac{1}{2}$ days, 4 M.	\$1.66
Richard Fischer, $\frac{1}{2}$ " 2 "83

Reporter's Fees.

Alma B. Roup, $\frac{1}{2}$ day	\$2.50
Transcript of Testimony, 34 folios	3.40
Total	\$5.90

Costs.

Fine	\$25.00
County tax	5.64
Officer's fees	5.15
Witness fees	2.49
Reporter's fees	5.90
On Appeal	1.68
	<hr/>
	\$45.86

Circuit Court Dane County, Wis. Filed Jun- 3 1908. Lawrence O. Larson, Clerk. Filed Aug. 10 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44e STATE OF WISCONSIN:

Dane County, Municipal Court.

STATE OF WISCONSIN
 against
 T. H. GRADY.

I, F. E. Currier, Clerk of the Municipal Court for the County of Dane, Wisconsin, do hereby, pursuant to the order and under the direction of the Judge of said court, transmit to the Circuit Court of said County, all the papers and a copy of the record of the proceedings in the foregoing and above entitled action, and I do certify that the papers returned herewith are the original papers filed in this office and all of the same, that I have compared the foregoing transcript of the proceedings herein with the original record in this office and that the same is a true and correct copy thereof and of the whole thereof.

Given under my hand and the seal of the said Court at the Clerk's office in the City of Madison this 3rd day of June, A. D. 1908.

[Seal of Municipal Court.]

F. E. CURRIER,
*Clerk of the Municipal Court
 for the County of Dane, Wis.*

(Endorsements:) Filed, Circuit Court Dane County, Wis., Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44f (Endorsements:) State of Wisconsin, Dane County, Municipal Court. State of Wisconsin against T. H. Grady. Circuit Court, Dane County, Wis. Filed Jun- 3, 1908. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44g STATE OF WISCONSIN,
City of Madison and County of Dane, ss:

In Municipal Court.

THE STATE OF WISCONSIN
 vs.
 T. H. GRADY, Defendant.

To Hon. Anthony Donovan, Judge of said Court:

Now comes the defendant T. H. Grady above named and hereby appeals from the judgment and sentence of the said court this day made and entered in the above entitled action convicting him of having on the 2nd day of March, 1908, at the Village of Oregon in said county, unlawfully having in his possession with intent to sell and having offered and exposed for sale and having sold a certain article,

product, compound and mixture composed of more than seventy-five per cent of glucose and less than twenty-five per cent of refiners' syrup, said refiners' syrup being then and there mixed with glucose and that the can containing said glucose and mixture was unlawfully branded and labeled "Karo Corn Syrup with Cane Flavor" and was further then and there unlawfully branded and labeled "Corn Syrup 85%", and sentencing him to pay a fine of \$25.00, and the costs of the action, and in default of the payment of such fine and costs that he stand committed to the county jail of said county for the term of thirty days, to the circuit court for the said county next to be held therein.

Dated this 19th day of May, 1908.

T. H. GRADY.

44h (Endorsements:) State of Wisconsin vs. T. H. Grady. Notice of Appeal. Filed: this 19th day of May, 1908, F. E. Currier Clerk of the Municipal Court, Madison, Wis. Filed: June 3, 1908, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44i STATE OF WISCONSIN,
City of Madison, County of Dane, ss:

In the Municipal Court for Dane County.

THE STATE OF WISCONSIN
against
T. H. GRADY.

Know all men by these presents, That we T. H. Grady as principal, and The United States Fidelity and Guaranty Company, of Baltimore, Md., as surety are held and firmly bound, and by these pre-ents do hold and firmly bind ourselves, our heirs, executors, successors and assigns unto the State of Wisconsin in the sum of One Hundred Dollars to be well and truly paid, if default shall be made in the conditions following, to-wit:

The Conditions of this recognizance are such that, whereas the above bounden T. H. Grady has been brought before the Municipal court for said Dane County, it having been charged upon the oath of H. C. Larson that, on the 2nd day of March A. D. 1908, at the Village of Oregon in said Dane County, the said T. H. Grady did sell a certain syrup unlawfully branded and labeled;

And whereas, on the trial of said T. H. Grady upon the 19th day of May A. D. 1908, he was duly convicted as charged, and thereupon adjudged guilty and duly sentenced by the Court to pay a fine of twenty-five dollars together with the costs of the action, or in default thereof to be imprisoned in the County jail for said Dane County for the term of thirty days, and the said T. H. Grady

44k having thereupon, to-wit, upon the 12th day of October A. D. 1908, duly filed notice of appeal to the circuit court for Dane county.

Now, therefore, if the said T. H. Grady shall appear before the said circuit court held in the court-house for said Dane County in the City of Madison in said Dane County upon the opening of the October term thereof upon the 12 day of October, A. D. 1908, at 10 o'clock A. M. and from time to time and from day to day thereafter until discharged by law, and shall then and there diligently prosecute his appeal and abide the sentence of the court thereon, and in the meantime shall keep the peace and be of good behavior, then this recognizance to be void, otherwise to remain in full force and effect.

Dated May 19, A. D. 1908.

T. H. GRADY. [SEAL.]
 UNITED STATES FIDELITY &
 GUARANTY CO.,
 By C. F. LAMB, [SEAL.]
General Agent and Attorney in Fact.

(Endorsements:) State of Wisconsin. In Municipal Court for Dane County. The State of Wisconsin against T. H. Grady. Recognizance on Appeal to Circuit Court. Filed this 19th day of May, A. D. 1908. F. E. Currier, Clerk of the Municipal Court. Filed Jun- 3, 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

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State of Wisconsin,
 Department of Insurance.

The U. S. Fidelity & Guaranty Company, located at Baltimore in the state of Maryland having furnished to the undersigned Commissioner of Insurance due proof of its possessing the qualifications required by the laws of the state of Wisconsin relating to suretyship corporations, and having complied with said laws,

Now, therefore, this is to certify that said company, has qualified and is authorized to transact within this state the business of a suretyship corporation under the Statutes of this State until the first day of March, A. D. 1909, unless this certificate be sooner revoked.

Witness my hand and official seal at Madison, Wisconsin, this 22 day of February, A. D. 1908.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

I, Geo. E. Beedle, Commissioner of Insurance of the State of Wisconsin, hereby certify that I have compared the foregoing copy with the original certificate of authority, number 20 issued to the U. S. Fidelity & Guaranty Company and on file in this department, and that the same is a true copy of said original and of the whole thereof.

Witness my hand and official seal at Madison, Wisconsin, this 19 day of May, A. D. 1908.

[SEAL.]

GEO. E. BEEDLE,
Commissioner of Insurance.

44m (Endorsements:) Filed Jun- 3, 1908. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44n 42d Day of October, A. D. 1908, Term, to-wit, Monday, Dec. 28, 1908.

Court Called to order:

Present:

Hon. E. Ray Stevens, Judge.

I. E. Kittleson, Sheriff.

S. G. Oakey, Undersheriff.

E. H. Smith, Reporter.

Lawrence O. Larson, Clerk.

STATE OF WISCONSIN

vs.

T. H. GRADY and GEORGE McDERMOTT.

And now comes the plaintiff the State of Wisconsin and its attorneys Vroman Mason and John M. Olin and the defendants, T. H. Grady and George McDermott issue having heretofore been joined and proceed to the trial thereof before the Court.

Upon stipulation made in open court it is agreed to try the two cases entitled State of Wisconsin vs. T. H. Grady and State of Wisconsin vs. George McDermott together, and so ordered by Court.

Thereupon the court proceeded with the trial of the cases.

LAWRENCE O. LARSON,

Clerk of Court.

44o STATE OF WISCONSIN:

In the Circuit Court for Dane County.

STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

STATE OF WISCONSIN, Plaintiff,

vs.

GEORGE McDERMOTT, Defendant.

Memorandum of Decision.

By the COURT: In the consideration of the questions here presented for determination, the court should accord to the legislature the highest consideration, not condemning its action so long as any reasonable basis can be discovered for upholding the constitutionality of chapter 557 laws of 1907. But if none can be discovered, the court must put the stamp of judicial disapproval upon the act.

If there be any fraud or deception in the sale of the article here in question, the case comes clearly within the rule of *Plumley v. Massachusetts*, 155 U. S. 461. In that case the supreme court upheld the right of the state to prescribe the conditions under which a wholesome food product, the subject of interstate traffic, could be sold in original packages. The decision was based on the ground that it is within the power of a state to exclude from its markets any food product so prepared as to cause it to look like an article of food in general use and thereby mislead the public into buying what it would not otherwise purchase.

The evidence convinces the court that the public generally understand a "syrup" to be the concentrated sap of a sugar producing plant. The term "corn syrup" naturally suggests that the product is a syrup produced from corn. Certainly the name carries no suggestion that it is produced by the action of acid on starch, which may be made from a score of different substances as well as from corn. But even if the product here in question were properly termed a syrup, that is not the controlling fact. As was said of oleomargarine, "It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other." *Plumley v. Massachusetts*, 155 U. S. 461, 475; 39 L. Ed. 223, 228. Even if this product be a syrup, the difference in the cost of producing it, if no other factor were involved, would make it a fraud to sell this article to the public under a name that induces the belief that it is procuring a syrup produced in the usual way by boiling down the sap of a sugar producing plant.

The fact that the product here in question has become a recognized article of commerce under the designation "corn syrup" does not affect the question we are considering, if its sale under this name does in fact mislead or deceive the public. *Crossman v. Lurman*, 192 U. S. 189; 24 Sup. Ct. Rep. 234, 238.

The question is not whether the term "corn syrup" is coming into general use, the question is whether this name deceives the public and leads it to buy that which it would not otherwise purchase.

Whether the product be wholesome or unwholesome, whether the consumer have valid reasons or only unreasoning prejudices in regard to the matter, the public has a right to know, and the state the right to compel the disclosure of, what is contained in all food products offered to the consumer.

State v. Aslesen, 52 N. W. 220, 221;

Stolz v. Thompson, 46 N. W. 410.

When the defendants established the fact that the public generally would not purchase the product if it were put out under the name of glucose (which is shown to be a proper designation), they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public. So that, even if the pails in which these defendants sold this product were the original packages of interstate commerce, the court concludes that the case

falls within the rule of *Plumley v. Massachusetts*, supra, and that the statute in question is not an unwarranted interference with the right of the federal government to regulate interstate commerce.

It will be observed that the statute in question does not attempt to impose such unreasonable restrictions on the sale of the product as were considered in *Collins v. New Hampshire*, 171 U. S. 30; or to absolutely prohibit its sale, as was done in *Pennsylvania, Schollenberger v. Pennsylvania*, 171 U. S. 1; but leaves the producer and the merchant free to sell it, when properly labelled.

Nor did the passage of the national pure food law take from the state the power to regulate the sale of the product after it had become incorporated in and mingled with the mass of property of this state. The federal government has power to regulate the branding of articles of commerce so long as they are the subject of interstate commerce. But when the importer has so acted on the thing imported that it becomes incorporated into and mixed with the mass of property in this state, it loses its distinctive character as an article of commerce and becomes subject to all lawful regulations which the state may enact. This rule finds apt illustration in the following cases:

Welton v. Missouri, 1 Otto, 275; 23 L. Ed. 347, 350;

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1167-8.

Any other application of the federal law would delegate to Congress the power to regulate the internal affairs of the state and deprive it of all right to exercise its police powers in protection of the public.

It may well be doubted whether the pail in which each of these defendants sold this product could in any event be considered an original package of interstate commerce. In the decision on which the original package doctrine is based (*Brown v. Maryland*, 12 Wheat. 419) Chief Justice Marshall limits the application of the doctrine to the property of the importer while remaining in his warehouse in the original form or package in which it was imported. Speaking for the United States Supreme Court, Mr. Justice Brown has recently pointed out the fact that in all the cases which have arisen in that court where the original package doctrine was applied, "the packages were of such size as to exclude the idea that they were to go directly into the hands of the consumer." *Austin v. Tennessee*, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 138.

Upon reason and authority it would appear that the wooden cases in which these pails were shipped into the state was the original package of interstate commerce, and that when this case was opened and these pails taken out and mingled with other goods in the stores of the defendants they were not original packages, but goods subject in all ways to the regulations prescribed under the police powers of this state.

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1170.

Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 137.

The mere fact that such regulations may in some degree affect interstate commerce is not sufficient to condemn the act, if otherwise within the proper exercise of such power. Within the legitimate exercise of the police power the state may prescribe such labeling as may reasonably be necessary to protect its people from fraud or deception in the sale of food products.

The fact that the title to the act in question declares the law one to protect the public health does not conclude the courts. They may determine the fact and give the law effect according to its scope and tenor, even though that may not be in literal accord with the title of the act.

State v. Redmon, 114 N. W. 137, 141;

Field, J., in Powell v. Pennsylvania, 127 U. S. 678; 32 L. Ed. 253, 260.

As we have seen, there is such danger that the public may be misled and defrauded into buying a product which it would not otherwise purchase, if the name "corn syrup" is used, as to suggest some reasonable necessity for a remedy, affordable only by legislative enactment, as to efficiently invite public attention thereto. Such being the case, it is primarily a legislative function to determine what means shall be adopted to protect the public. It is only when the boundaries of reason have been so clearly exceeded as to violate some constitutional prohibition, express or implied, that the court has any power to interfere with the exercise of this
44s legislative power. State v. Redmon, 114 N. W. 137. When the state acts within these bounds, the state does not deprive any citizen of liberty or property without due process of law.

Wilkinson v. Rahrer, 140 U. S. 545; 35 L. Ed. 572, 574;

Austin v. Tennessee, 179 U. S. 343, 21 Sup. Ct. Rep. 132, 134.

The constitution does not confer on any man the right to keep secret the composition of the substance which he offers to the public as a food product. The compel him to disclose its composition does not deprive him of his property without due process of law (State v. Aslesen, 52 N. W. 220, 221; Stolz v. Thompson, 46 N. W. 410, 411), even though it may prevent him from using a trade name. State v. Tetu, 107 N. W. 953.

He may be compelled to sell the product for what it actually is, upon its own merits, and is not entitled to the benefit of any additional market value which may be imparted to it by resorting to any means which shall make it resemble, or sell for, or in the place of, any well known food product. Plumley v. Massachusetts, 155 U. S. 461, 475; 39 L. Ed. 223, 228.

In People v. Harris, 97 N. W. 402, the only question presented to the court was whether the legislature has prohibited the sale of glucose under the name "corn syrup." The state had by stipulation and concession taken out of the case practically all the questions before this court for consideration. As no constitutional questions were discussed in that case, it throws little light upon the constitutional questions under consideration in the case at bar.

The court concludes that none of the constitutional rights of the defendants have been violated by chapter 557 laws 1907.

Turning to the question of whether the reference to the standards promulgated by the secretary of agriculture is a delegation of legislative power, the case would seem to fall squarely within the rule of *Buttfield v. Stranahan*, 192 U. S. 470, 494; 24 Sup. Ct. 349, 355; approved in *St. Louis Ry. Co. v. Taylor*, 210 U. S. 281, 286-7, and *Coopersville Creamery Co. v. Lemon*, 163 Fed. Rep. 145.

But the question of the effect of reference to these standards is not involved in the cases at bar. Assuming that this reference to these standards is a delegation of legislative power, and giving the act that construction which the court must give it when its constitutionality is questioned, it is not reasonably clear that the legislature would not have enacted the portions of chapter 557 laws of 1907 relating to mixed syrups, without that part which contains the reference to the standards. The part of the act relating to mixed syrups is complete in itself. It prescribes exactly the label required for each different mixture and defines and classifies these mixtures without any reference to the standards or to the preceding part of the section. Even if the part of the act relating to unmixed syrups be void (a conclusion which the court has not arrived at), the balance of the act is independent of these provisions, and valid and enforceable.

The court concludes that the portion of chapter 557 laws of 1907 here under consideration is a valid constitutional enactment. Under the undisputed evidence the defendants are guilty of the offenses charged against them. Counsel for the defendants may produce them before the court of April 26th, 1909, at 2 P. M. to receive sentence, at which time the court will consult with counsel as to the necessity of formal findings.

Dated April 16, 1909.

By the Court.

EDWARD H. SMITH,
Official Reporter.

44u (Endorsements.) Copy. Circuit Court Dane County.
State of Wisconsin vs. T. H. Grady et al. Memorandum of
Decision. Filed Circuit Court Dane County, Wis. Apr. 17, 1909,
Lawrence O. Larson, Clerk. Filed Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44v 7th Day of April, A. D. 1909, Term, to-wit, Monday, April 26, 1909.

Court called to order.

Present:

Hon. E. Ray Stevens, Judge.
John P. Halback, Sheriff.
Wm. Klusmann, Under Sheriff.
E. H. Smith, Reporter.
Lawrence O. Larson, Clerk.

STATE OF WISCONSIN

vs.

T. H. GRADY.

And now comes the plaintiff, the State of Wisconsin, and its attorneys, the District Attorney, Vroman Mason, and John M. Olin, and the defendant, T. H. Grady, and his attorney, H. O. Fairchild.

Thereupon T. H. Grady, the defendant, was arraigned before the court.

Thereupon the court made inquiry of the defendant, T. H. Grady, if he had anything to say why judgment should not be passed upon him.

Thereupon the defendant, T. H. Grady, stated that he had nothing to say, and his attorney, after being asked by the court, said he had nothing to say.

Thereupon the defendant, T. H. Grady, was called forward and the court pronounced sentence upon said defendant, as follows, to-wit:

The court finds you guilty of the offense of having sold syrup not labeled as required by law, and the judgment of the court is that you be punished by the imposition of a fine in the sum of Twenty-five Dollars (\$25.00) and by the costs of the action, which have been taxed and allowed at Twenty-six and 71-100 dollars, in all the sum of Fifty-One and 71-100 Dollars. And in default of the payment of this fine, you stand committed to the common jail of Dane County, Wisconsin, until fine and costs are paid, but not to exceed sixty days in all.

Upon motion of H. O. Fairchild, attorney for said defendant, order staying execution of judgment until hearing and decision of the Supreme Court granted.

LAWRENCE O. LARSON,
Clerk of Court.

44x

Dane County Circuit Court.

STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

At a general term of said court held on the 26th day of April, 1909, Present, Hon. E. Ray Stevens, presiding judge:

It appearing to this court that the above named defendant has this day sued out of the supreme court of the state of Wisconsin a writ of error to review the judgment and sentence of this court this day pronounced, wherein and whereby the said defendant was convicted of a violation of the provisions of chapter 557 of the laws of Wisconsin for 1907, and adjudged and sentenced to pay a fine of Twenty-five dollars (\$25.00), together with the costs of the action, amounting in all to Fifty-one Dollars and Seventy-one Cents (\$51.71), and in default of such payment that the said defendant be confined in the county jail of Dane county until such fine and costs be paid, not exceeding sixty days—the said writ of error being returnable to the next term of said supreme court to be held on the 10th day of August, 1909, on motion of H. O. Fairchild, attorney for the said defendant,

It is ordered, that the execution of said judgment and sentence of the court be and the same hereby is stayed until the final hearing and decision of the said supreme court under said writ of error, in case the said defendant this day file in this court his bond to be approved by the court with a sufficient surety to the State of Wisconsin in the sum of Two Hundred and Fifty Dollars (\$250.00), conditioned upon the said defendant appearing in said supreme

44y court at the said term thereof and *and* prosecuting the said cause to a final decision and judgment in said court under such writ or error and abiding the judgment and sentence of the said court thereon and in the meantime keeping the peace and being of good behavior—the said bond to be returned to said supreme court under said writ.

By the Court:

E. RAY STEVENS, *Judge*.

(Endorsements:) Original. Circuit Court Dane County. State of Wisconsin, plaintiff, vs. T. H. Grady. Order to stay execution and judgment. Filed. Apr. 26, 1909, Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed. Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis.

44z STATE OF WISCONSIN:

Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
 vs.
 T. H. GRADY, Defendant.

It is hereby ordered that the original papers instead of a certified copy of the record be returned to the supreme court under the writ of error herein.

Dated this 22nd day of July 1909.

By the Court:

E. RAY STEVENS, *Judge*.

(Endorsements:) Original. The State of Wisconsin, plaintiff, vs. T. H. Grady, defendant. Order. Filed. Jul. 22, 1909. Circuit Court Dane County, Wis. Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909. Clarence Kellogg, Clerk of Supreme Court, Wis. Greene Fairchild North & Parker, Attorneys for Def't. Green Bay, Wis.

44aa STATE OF WISCONSIN:

Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,
 vs.
 T. H. GRADY, Defendant.

THE STATE OF WISCONSIN, Plaintiff,
 vs.
 GEORGE McDERMOTT, Defendant.

In view of the fact that these two cases were by consent of the parties and the court tried together and only one set of exhibits was put in evidence but, however, with the agreement between the parties that they should be filed and considered as presented in both cases;

It is hereby stipulated in order that the cases may be separately removed to the supreme court under writs of error issued in each case that the original exhibits be attached to the bill of exceptions in the case against the defendant McDermott or where they may not because of their character be so attached that they be returned to the supreme court in the McDermott case with the same force and effect, however, as though attached to the bill of exceptions; but all such exhibits to be treated and considered in the supreme court as a part of the bill of exceptions in the Grady case
 44ab equally as though attached to the bill of exceptions in that case or returned with the record in that case.

It is also stipulated that but one printed case, to be entitled in both actions, be prepared, served and filed, but with the same effect as though a printed case in each action were so prepared, served

and filed; also that the briefs of counsel for plaintiff in error and defendant in error be prepared, served and filed in the same manner.

It is also stipulated that the defendant in each of said actions may now file the writ of error heretofore sued out in such action with the clerk of said circuit court and that on or before the 10th day of August, 1909, return thereto may be made without the bill of exceptions being sent up as a part of the record with the agreement, however, between the parties, that the bill of exceptions shall hereafter be settled, signed and certified by the presiding judge of said court and thereupon duly returned by a supplemental return by the clerk of said circuit court to the supreme court, with the same force and effect as though said bill of exceptions had been settled prior to such return to the supreme court and returned with and as a part of the original record returned to such supreme court.

Dated this 23 day of July, 1909.

OLIN & BUTLER,
Special Counsel for the State.

H. O. FAIRCHILD,
Attorney for Each of the Defendants.

(Endorsements:) Original. State of Wisconsin Plaintiff vs. T. H. Grady and George McDermott, Defendants. Stipulation.
44ac Filed: Jul- 25 1909, Circuit Court Dane County, Wis.
Lawrence O. Larson, Clerk. Filed: Aug. 10, 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44ad STATE OF WISCONSIN,
County of Dane, ss:

I, Lawrence O. Larson, clerk of the circuit court within and for the said county of Dane, in obedience to the mandate of the within and foregoing writ of error and of the foregoing order of said circuit court requiring the return of the original papers of record in the action in which said writ of error is issued instead of certified copies thereof, and the stipulation of the parties relative to this and a supplemental return herewith, transmit and return to the Honorable Supreme Court of the State of Wisconsin each and every and all of the original papers, records and proceedings on file and of record in my office in said action, as well as said writ, except the opinion of the court a true and correct copy of which is herewith returned for the reason that said cause was tried with the action of State against George McDermott and but one opinion was filed, entitled in both actions and such original opinion is returned with the record in said action of State vs. McDermott to the Supreme Court concurrently herewith.

In testimony whereof I hereunto set my hand and affix the seal of the said circuit court this 9th day of August, 1909.

[SEAL.]

LAWRENCE O. LARSON,
*Clerk Circuit Court for the County
of Dane, State of Wisconsin.*

(Endorsements:) Filed. Aug. 10 1909, Clarence Kellogg, Clerk of Supreme Court, Wis.

44ae STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

Bill of Exceptions.

Original.

44af STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

To John M. Olin, Esq., Special Counsel for the State:

The defendant in the above entitled action proposes the attached transcript of testimony, proceedings, orders, rulings, decisions, exceptions, exhibits, etc. etc. as his proposed bill of exceptions in the foregoing entitled action.

Dated this 24th day of June, 1909.

H. O. FAIRCHILD,
Attorney for Defendant.

Filed Oct. 12, 1909. Clarence Kellogg, Clerk Supreme Court, Wis.

45 STATE OF WISCONSIN:

In Circuit Court for Dane County.

THE STATE OF WISCONSIN, Plaintiff,

vs.

T. H. GRADY, Defendant.

This cause coming on to be heard at the October term of said court for the year 1908, before Hon. E. Ray Stevens, presiding judge of said court, without a jury, a jury having been expressly waived by stipulation in open court between the parties, upon the appeal of the defendant from the judgment and sentence of the Municipal Court of the County of Dane, on the 27th day of December, 1908, and continued from day to day thereafter until the conclusion of the trial thereof, the following proceedings were had, testimony taken, evidence submitted, rulings, decisions and orders made, offers submitted, objections made and exceptions taken—John M. Olin appearing as attorney on behalf of the State and H. O. Fairchild appearing as attorney for the defendant—that is to say:

It was stipulated and agreed by and between the parties to this action, in open court, that the above entitled action, and another action wherein the State of Wisconsin is plaintiff and George McDermott defendant, shall be tried together, and that the testimony taken in open court shall be regarded as testimony given in each case.

46 H. C. LARSON, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Larson, where do you live?

A. In this city.

Q. And how long have you lived here?

A. I have lived here since last September.

Q. And your business is what?

A. Second assistant dairy and food commissioner.

Q. And have been in that position for how long?

A. Since February last year.

Q. And what position were you holding prior to that time?

A. The position of creamery, dairy and food inspector.

Q. You have been connected with the department for how long?

A. Since 1905.

Q. As such assistant did you have anything to do with the purchasing of some article from the defendants here, Mr. McDermott and Mr. Grady?

A. Yes sir.

Q. I wish you would just go on and state to the court the facts of the case?

A. On the 2nd day of March this year at the village—I presume it is the village of Oregon, in this county, I went into the place of business of Mr. T. H. Grady and purchased from him a pail of corn syrup, paid him for it the sum of twenty-five cents. Also entered the place of business—

Q. Taking that one first, can you pick out of these cans which one that was? There are two cans produced.

A. Number 1258 H. C. L. is the registration number of T. H. Grady's can purchased from T. H. Grady. This is the can, or the pail rather, purchased from T. H. Grady.

Q. That was before the municipal court, was it not, the same can?

A. Yes sir. Those serial numbers are the same.

Q. It was marked at the time, was it not?

47 A. I placed these identification numbers on the can at the time I purchased it from Mr. Grady.

Q. And that number is on the can, "1258 H. C. L." is it not?

A. Yes sir.

Q. And below there is some writing "T. H. Grady, Oregon, Wis. 3/2/08 Pd. 25 cts". Whose writing is that?

A. Mine.

Q. That was put there by you at what time?

A. At the time I purchased the pail of corn syrup.

Q. Can you state whether the brand that's now on that can was on it at the time you purchased it?

A. Yes sir.

Q. That reads, does it not, "Karo," under that "Trade Mark," under that "Corn Syrup with Cane Flavor".

A. Yes sir.

Q. And below that is "Corn Products Manufacturing Co. Davenport, Iowa"?

A. Yes sir.

Q. And another brand on it is "Karo Corn Syrup is a pure food product, its ingredients, Corn Syrup 85% and Refiners' Syrup 15%, are of the highest quality and prepared according to the U. S. standards."

A. Yes sir.

Q. There is also printed on there, is there not, near the top, "Guaranteed under the Food and Drugs act June 30, 1906. Serial No. 311".

A. Yes sir.

Q. And there is also on the can, is there not, inside of a small circle the word "Karo" and below it "Trade Mark".

A. Yes sir.

Q. The price of the can is also on it, is it not?

A. Yes sir, underneath that circle, "25 cents".

48 Q. Now were you in the store when the can was produced that you purchased—you were in the store at that time, were you?

A. Yes sir.

Q. Did you see from what place it was obtained—did you see the man get it for you?

A. Yes sir.

Q. And hand it to you?

A. Yes sir.

Q. He took it from what place?

A. He took it from the package of other cans containing like mixtures I presume.

Q. Was it in a package or was it on the shelf? You testified on that, if you remember, in the court below.

A. The data on this particular can I haven't, but in my opinion it was taken from the shelf.

Q. Yes that is my recollection of the testimony in the court below.

A. In the other case, however, it was taken from the shelf. I have the data here.

Q. You have the data there?

A. Yes sir.

Q. Or minute that you made of that fact?

A. Yes sir. My recollection is that it was taken from the shelf.

Q. Which did you buy first, the one from Grady or the one from McDermott? Do you remember, or don't you?

A. Not positively, but I am of the opinion that Mr. McDermott's was first. I made four purchases in that town.

Q. What did you do with this can after you bought it?

A. I sealed it up and placed the identification numbers on it and delivered it to the chemist at the laboratory.

Q. The chemist's department?

A. Dr. Fischer.

49 Q. Dr. Richard Fischer?

A. Yes sir.

Q. Now, on the same day did you also buy a can from McDermott, one of the defendants?

A. Yes sir, from the place of business of B. McDermott Sons, from Mr. George McDermott.

Q. Just go on and state what you purchased from him?

A. I purchased from him a can or pail of corn syrup, placed on the pail the serial number 1259 H. C. L. as an identification mark.

Q. I hand you a pail. Is that the pail you purchased from him?

A. Yes sir.

Q. Was that present in the municipal court upon the preliminary hearing?

Q. Yes sir.

Q. Or upon the trial I guess it was there. Was this paper around it at that time which is around the bottom of it now?

A. Yes sir, that's the paper over which the seal was placed.

Q. It was originally done up, wasn't it, and sealed?

A. Yes sir, wrapped up in a paper and a seal placed on it.

(The wrapping paper just referred to was removed from the can by Mr. Olin with the consent of counsel for the defendant).

Q. And it was in that shape in the municipal court?

A. Yes sir.

Q. You placed your number on that, did you, at that time?

A. Yes sir, 1259 H. C. L.

Q. And is this your writing at the bottom of that label or towards the bottom "B. McDermott Sons, Oregon, Wis. 3/2/08 Pd. 25 cts".

A. Yes sir.

Q. That is your writing, is it?

A. Yes sir.

Q. Now this has on it, has it not, the same label as the other?

A. Yes sir.

50 Q. Which is the prominent label as far as size is concerned?

A. "Corn Syrup".

Q. Well it is "Karo" isn't it?

A. Yes sir.

Q. And "Corn Syrup"?

A. Yes sir.

Q. Is there any such term as glucose on either of these cans?

A. No sir, not that I discover.

Q. This has on it in one place, has it not, "90% Corn Syrup"?

A. Yes sir.

Q. And on another place printed "10% Cane Syrup"?

A. Yes sir.

Q. Another place there is printed, is there not, "Compound: 85% Corn Syrup, 15% Cane Syrup" and that is sort of crossed out?

A. Yes sir.

Q. Where was that, in a box or on the shelf?

A. It was among a number of other packages on the shelf, exposed there for sale in the store with like mixtures, I presume.

Q. These were what kind of packages, pound packages, or don't you know?

A. I don't know. I should judge they weighed about five pounds.

Q. What is the size of the can?

A. It states on this can "5 lbs. Net Weight".

Q. You did what with this purchase?

A. I wrapped the paper around it and tied a string on it, sealed it up and delivered it to Dr. Fischer.

Q. The food chemist?

A. Yes sir.

Mr. OLIN: That is all. Take the witness.

Mr. FAIRCHILD: That's all.

51 Dr. RICHARD FISCHER, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Doctor, where do you reside?

A. Madison, Wisconsin.

Q. And what is your business?

A. I am chemist of the Wisconsin dairy and food commission and also assistant professor at the University of Wisconsin.

Q. You have been such chemist for the food commission for how long?

A. Since January 17, 1903.

Q. I wish, doctor, you would state here so as to get it into the record your previous training and experience fitting you for this position.

A. After graduation from the high school I entered the University of Michigan and after two years of study received the degree of Pharmaceutical Chemist. I continued my studies there and after two more years took the degree — bachelor of science in chemistry. I also was assistant in analytical chemistry for two years at the university of Michigan. From there I went to the university of Wisconsin as an instructor and was instructor from 1894 to 1898, when I went to Europe and pursued two years of study in the universities of Berlin and Marburg and took the degree of doctor of philosophy and master of liberal arts at the university of Marburg, specializing in chemistry. I came back as assistant professor in the university of Wisconsin and am still holding that title, and since 1903, as before stated, I have also been chemist for the Wisconsin dairy and food commission.

Q. And as such chemist you may state, doctor, in a general way what your duties are?

A. My duties are, besides advisory ones to the commissioner, to undertake analyses of samples of food and drug products,
52 primarily those that are submitted by inspectors of the commission.

Q. And you have had to do then, as such chemist, with the execution of the pure food law which was enacted by our legislature a few years ago?

A. Yes sir.

Q. I wish you would state so as to get it into the record what the Association of Official Agricultural Chemists is?

A. The Association of Official Agricultural Chemists is an association composed of the chemists of the United States Department of Agriculture and of the various state experimental stations and also the chemists of the various state dairy and food commissions and of quite a number of boards of health.

Q. Have you heard the testimony of Mr. Larson, Dr. Fischer, as to these two cans of so-called Karo Corn Syrup?

A. I have.

Q. Did you as such food chemist analyze the contents of those two cans?

A. Yes sir.

Q. I wish you would state the result of your analysis?

A. I found both of the samples to be composed of seventy-five per cent or more—more than seventy-five per cent. I will say—of commercial glucose and less than twenty-five per cent. of some syrup of molasses, probably refiners' syrup.

Q. In each case?

A. In each case.

Q. Can you give us, doctor, an accurate definition of glucose?

A. I consider the definition of glucose given in Circular No. 19, published by the United States Secretary of Agriculture, as an accurate definition of glucose.

Q. Is that one of the food products for which a standard
53 was fixed by the secretary of agriculture on June 26, 1906, or promulgated on that date?

A. It is.

Q. Did you assist in the preparation of those standards?

A. Yes sir, in getting them into the form in which they appeared in Circular No. 19. I did not have anything to do with the standards that were promulgated in 17, 13 and I believe there was another one, Circular No. 10.

Q. No, I am calling attention to simply this circular.

A. Yes sir.

Q. Can you state the committee that acted in the preparation of that circular No. 19 of these food products?

A. The committee consisted of William Frear of State College, Pennsylvania. Dr. Edward H. Jenkins of the Connecticut Agricultural Experiment Station, Dr. M. A. Scovell, Director of the Kentucky Agricultural Experiment Station, Dr. H. A. Weber, Professor of Agricultural Chemistry in the Ohio Agricultural College, Dr. H. W. Wiley, Chief of the Bureau of Chemistry of the United States Department of Agriculture. These five comprise the committee on official standards of the Association of Official Agricultural Chemists, and I was appointed by the secretary of agriculture as an expert to assist in the formulating of standards. I really represented what was then called the Interstate Food Commission, what is now called the Association of State and National Food and Dairy Department.

Q. Well, now can you state the definition of glucose as determined by this body of men that you have named and approved of by the secretary of agriculture?

A. My definition is as follows: Glucose, mixing glucose, confectioners' glucose (these three being synonyms) is a thick, syrupy colorless product made by incompletely hydrolyzing starch, or a starch-containing substance, and the decolorizing and evaporating the product. It varies in density from forty-one to forty-five degrees Baume at a temperature of one hundred degrees Fahrenheit and conforms in density within these limits to the degree Baume it is claimed to show, and for a density of forty-one degrees Baume contains not more than twenty-one per cent and for a density of forty-five degrees not more than fourteen per cent of water. It contains on a basis of forty-one degrees Baume not more than one per cent of ash, consisting chiefly of chlorids and sulphates.

Q. What is your opinion, doctor, as to whether or not that is a correct definition of glucose?

A. I think it is, the article known commercially as glucose.

Q. Does it or does it not go into the chemical composition of the product?

A. It does not.

Q. Chemically considered, commercial glucose consists of what?

A. Consists of a solution of water, of dextrose, dextrin, maltose and some ash constituents at the present time in this country, mainly, sodium chlorate, and perhaps some other products, concerning which, however, nothing is very definitely known, a product that has been called gallisin. It is claimed to have been isolated by some investigators. Other investigators claim that this gallisin is only another form of maltose or iso-maltose. But neglecting these products concerning which not very much is known, the composition I gave before explains it.

Q. The three main items.

A. Dextrin and dextrose, maltose being present in only a very small proportion, and ash being present in only a very small proportion.

Q. Can you give us the percentage within certain limits of the maltose, dextrin and dextrose, the mineral matter called ash and water, that you find in this product, glucose?

A. Leach, in his book on Food Analysis, gives the following limits: Dextrin from 29.8 to 45.3 per cent; maltose 4 to 19.3 per cent; dextrose from 34.3 to 36.5 per cent; ash from .39 to .52 per cent; and water from 14.2 to 17.2. However, I believe the limit of variation is somewhat larger. The variation is given as greater in the Report on Glucose of the committee appointed to investigate glucose by the National Academy of Science.

Q. What is the variation there so far as it states any difference?

A. Leach evidently tabulated his composition from the first three samples of glucose that are tabulated in this report.

Q. What report?

A. Just mentioned, the report of that committee.

Mr. FAIRCHILD: You mean the committee of which you were assistant?

A. No, the Committee of the National Academy of Science. They report the composition as follows: Dextrose varying from 34.3 to 42.8; maltose from nothing to 19.3.

Q. They leave the maximum the same as you gave it before, but leave the minimum at nothing?

A. Yes. The next highest was only 6.5. Of Dextrin the lowest was 29.8 and the highest 45.3. Of ash, the lowest was .32 and the highest was 1.06 of water, the lowest was 14.2 and the highest 22.6. This for liquid glucose. I might say that the methods for the exact determination of these various products are not very perfect, and the actual variation may be a little bit in excess or a little bit below those.

Q. But as to the item of dextrin it would, speaking broadly, vary from a third up to say somewhere less than one-half.

A. I believe I gave the figures, 29.8 to 45.3.

Q. Now, of these three substances: dextrin, maltose and dextrose, which of them are true sugars?

A. Dextrose and maltose.

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Q. What are true sugars?

A. Sugars are a class of organic substances known as carbon-hydrates; that is, they are a part of a class of organic substances known as carbonhydrates, which are characterized by being crystallizable and having a sweet taste and having some warm chemical properties. They are all more or less closely allied to one another.

Q. Now, is dextrin a sugar?

A. No sir.

Q. What is it?

A. It is in its physical character more closely allied to the gums than it is to the sugars, and it is commercially known as British gum.

Q. And when in a solution of water would be really what?

A. Its solution in water constitutes a mucilage, and in fact the National Formulary, which is one of the standards for drugs in this state, recognizes a solution of dextrin in two parts of water under the name of mucilage of dextrin.

Q. Now dextrose, one of the other elements, is that also known as grape sugar?

A. True grape sugar is dextrose. It is also known as dextro-glucose.

Q. It's a constituent of grapes, is it?

A. It is a constituent of grapes and is the sugar that is frequently found on the outside of dried grapes or raisens.

Q. What is maltose?

A. Maltose is also known as malt sugar and is a sugar that is produced in the sprouting of grain by the action of diastase, which is the unorganized ferment or enzyme present in malt, upon starch. It is also produced to a slight extent by the action of acids upon starch.

Q. What do you say as to sweetness of dextrose or maltose as compared with cane sugar or beet sugar or maple syrup?

57 A. Dextrose is generally stated to be three-fifths as sweet as cane sugar or sucrose.

Q. Is sucrose another name for cane sugar?

A. Yes sir.

Q. And that is the sugar that is present in what?

A. That is the sugar that is present in the juice of the sugar cane, of sorghum, of sugar beets, of maple sap. Maltose is even less sweet than dextrose. Dextrin is not sweet at all or has at the most a very faint sweet taste, hardly recognizable.

Q. Now, take glucose made of these three elements in the main that you speak of; dextrin, dextrose and maltose, what do you say as to its character as to sweetness and as to its character as to having flavor or being insipid?

A. I think the word insipid expresses its character as far as taste is concerned. It has a slight sweet taste, very much less tho' than a solution of cane sugar of the same density, and it has practically no characteristic flavor.

Q. And in that respect what do you say as to whether it is like or different from cane syrup, maple syrup, sorghum or refiners' syrup.

A. I would say that it differs from these in that cane syrup, sorghum and maple syrup, all have characteristic flavors indicating their source.

Q. Now because of this lack of sweetness and lack of flavor, what do you say about glucose being sold alone, unmixed with anything else, for consumption upon the table as a syrup?

A. I am sure that I would not use it—

Q. Well, that is hardly the test. That isn't the test.

A. I do not believe—

Q. The question is whether glucose, unmixed with anything else, the article you described, is used upon the table by the consumer?

58 A. I am sure that it isn't sold for that purpose in the state of Wisconsin on the retail market.

Q. In other words, if it is used by the consumer on the table, it's used in connection with what?

A. It is used in connection generally with molasses or with what is known as refiners' syrup, which is really a kind of molasses also, which substances are added for the purpose of giving flavor and color and additional sweetness to the product.

Q. Now, from what can glucose be made?

A. Commercial glucose can be made—

Mr. FAIRCHILD: Is that what you asked him, commercial glucose?

Mr. OLIN: I had in mind commercial glucose. We are dealing in commercial glucose. I don't refer to the glucose you might get out of honey.

Mr. FAIRCHILD: You asked him from what it can be made.

Mr. OLIN: You can answer it both ways, if you wish to, doctor.

A. Commercial glucose can be made and is generally made from

starch by the action of mineral acids upon the starch. In this country it is made almost exclusively, if not exclusively, at the present time, from corn starch.

Q. That is, starch obtained from what?

A. Obtained from the grain corn. In Europe it is made largely from potato starch.

Q. Would there be any difference in the product whether it is made from the starch of corn or from the starch of potatoes?

A. There would be no appreciable difference. It could also be made from tapioca starch, in fact from any starch by the action of mineral acids, and hydrochloric acid is, as far as I know, used exclusively or almost exclusively in this country, while formerly sulphuric acid was used almost exclusively.

Q. What would you say then, speaking of glucose made from corn?

59 A. I would say that glucose is not made from corn, but is made from—

Mr. FAIRCHILD: Are you seeking his opinion as to whether that is a proper name or not?

Mr. OLIN: Yes.

Mr. FAIRCHILD: That is, whether in his opinion it is a proper name?

Mr. OLIN: Yes, proper designation. You speak of it as something made from corn.

A. While it is indirectly made from corn, it is directly made from the starch obtained from corn, and the corn adds nothing to the character of the product, it adds nothing to the flavor, and the glucose has no corn flavor whatsoever, and I do not believe, therefore, that it should be said even that it is made from corn; it is made from starch.

Q. How, if you can tell us, is commercial glucose prepared?

A. Without going into detail, I may say that it is prepared by the action of dilute mineral acid; hydrochloric or sulphuric generally, upon starch at somewhat elevated temperatures. Glucose is the first product so obtained. If the action of the acid is prolonged, and especially if the temperatures that are used are elevated, the starch will be converted almost entirely into the sugar dextrose, and the product obtained in the latter manner is known commercially as starch-sugar and sometimes as grape-sugar.

Q. What would you say as to dextrin and maltose being almost intermediate products—starch and dextrose?

A. They are, yes sir.

Q. There is such a thing, is there, as commercial grape-sugar or starch-sugar?

A. Yes sir.

Q. And you obtain that article how?

A. As stated, by the action of dilute acids upon starch for a considerable length of time, at least a much longer time than is necessary to convert the starch into glucose. It can also be
60 obtained from other sources. Grape Sugar, as stated is con-

tained in grapes and therefore in raisins. It is contained in honey, together with another sugar known as levulose, and it is contained with this levulose in almost all acid fruits, and it is produced by what is known as the inversion of sucrose or cane sugar, that is, by the treatment of cane sugar with acids the cane sugar is changed into equal parts of dextrose and levulose, and before cane sugar can ferment it is necessary to change the cane sugar first into invert sugar composed of dextrose and levulose.

Q. Is this starch-sugar an expensive or cheap article?

A. As manufactured from starch it is a cheap article.

Q. Is used for what?

A. If manufactured from honey or grapes, it would be rather an expensive article.

Q. It wouldn't be made that way commercially?

A. No, not commercially.

Q. And made commercially and used commercially it is how used or for what purpose is it used?

A. It was formerly used to some extent as an adulterant of cane sugar. In my experience as chemist of the Wisconsin dairy and food commission I have only found one instance where it was sold in place of cane sugar and that perhaps accidentally.

Q. It is used to manufacture beer, isn't it?

A. Yes, for the manufacture of beer and ales it has been used in the past, and a certain form of it is sold under the name commercially of brewers' sugar.

Q. Now, as I understand it, you get that product by continuing this process longer?

A. Yes sir.

Q. Beyond the point where you continue it for the purpose of making glucose commercially out of starch?

A. Yes sir.

Q. Now, doctor, can you give us a definition of refiners' syrup, the other term that we deal with here?

A. The product known commercially as refiners' syrup or treacle is the residual liquid product obtained in the process of refining raw sugars and contains not more than twenty-five per cent of water and not more than eight per cent of ash. The first is the definition. The second is the chemical standard.

Q. You regard that as being a correct definition?

A. I do. Altho' I believe that "refiners' molasses" or "sugar-house molasses" would be a better name for this product than refiners' syrup.

Q. And why do you say that?

A. The words "refiners' syrup" in my opinion create the impression in the mind of the consumer that this is a superior article, that it is better for example than molasses, whereas in fact, as far as purity is concerned, it is inferior to the better grades of molasses. It contains a higher percentage of impurities. Its color is generally lighter tho' and its flavor rather characteristic, and it is therefore used very much for mixing with glucose in making these glucose mixtures.

Q. Where does this refiners' syrup come from?

A. Refiners' syrup is produced in the refining of raw sugars.

Q. Does it come from beet sugar?

A. No sir.

Q. Why not?

A. The molasses obtained in the manufacture of beet sugar contains impurities of such a character as to render the molasses unfit for human consumption.

Q. It is cut up into feed for stock?

62 A. Used at the present time almost exclusively in the manufacture of cattle feed.

Q. Then the purpose of mixing refiners' syrup with glucose is what?

A. To give to the glucose and of course to the mixed product a flavor, color and also additional sweetness.

Q. Now as to these two articles that enter in this mixture or compound, as to whether they are expensive or cheap articles of food relatively?

Objected to as incompetent.

Objection overruled.

Exception by defendant.

A. Glucose is our cheapest form of sugar or similar preparation. There might be some very low grade molasses or very low grade refiners' syrup even that would be cheaper than glucose, but glucose is much cheaper than any true cane syrup, sorghum syrup or maple syrup and it is also more expensive than high grade molasses or refiners' syrup or even a medium grade.

Court: What is more expensive?

A. The glucose is cheaper.

Q. In other words, the molasses is more expensive?

A. Molasses, yes.

Q. So that as compared with the syrup, the cane syrup, maple syrup, sorghum, molasses, this is as to cost an inferior article—cheaper?

A. Yes sir.

Q. You have given your opinion that it was not proper to designate this article made from starch as a corn syrup. Do you know whether there is such an article made from the corn plant itself similar to the article made from cane or sorghum?

A. Yes sir. Such an article can be made and has been made.

Q. I wish you would just explain, doctor, what you know about that from your reading and general knowledge.

63 A. A true corn syrup made from the juice of corn stalks, either of sweet corn or of ordinary corn, can be evaporated down, and on account of its large sugar content will form a true syrup. That syrup was made by the aborigines of this county. It is reported by Cortez as one of the industries, if I may so call it, of the natives of Mexico, and Humboldt speaks of the manufacture of such a syrup by the inhabitants of Mexico and also of Peru. It was made in considerable quantities during the revolutionary war and

it has been made in greater or less quantities ever since. The United States department of agriculture has made numerous analyses of such syrup or of the sap of corn and has found that there is a large percentage of cane sugar in it. At the present time the manufacture of syrup has not been commercially practiced and the manufacture of sugar from that source has not been commercially practiced, altho' there is a company organized for the purpose, for the manufacture of machinery to accomplish this, and they claim that it can be commercially done, and according to the recent reports, since the byproduct, the stalk, can be used in the manufacture of paper pulp, which is getting scarce, the true corn syrup may become a commercial commodity.

Q. Produced in that way?

A. Yes sir.

Q. Do you know, doctor, what the practice has been until quite recently of the Corn Products Company and other manufacturers of glucose in this country of labeling their glucose when sold in barrels to the candy manufacturers?

A. The glucose so sold to candy manufacturers has, as far as I know, invariably been labeled, that is, stencilled, "Glucose," and it has been billed as glucose, it has been bought and sold as and for glucose.

Q. Now, you have stated that you thought in your opinion the term "corn" was not a proper term to be used in designating this article. What would you say as to the combination of the two "Corn Syrup"?

A. For glucose.

Q. Yes.

A. I should not consider it a proper name.

Q. Will you give your reasons in addition, if any, to those you have already given?

A. In the first place, while the term "syrup" is used in chemistry and to some extent technically as representing any thick liquid, some times in a more restricted sense as a "thick sweet liquid," I believe that the term "syrup" as describing a food product should be further restricted and should be confined to the syrup produced by the evaporation of the juice of sugar producing plants.

Q. I wish you would explain to the court the difference there is, if any, in the manufacture of this glucose from starch as compared with the product where you make sugar from cane or sorghum, as to the use in the two cases of any extraneous substance like an acid, in the producing of the one that is not used in the production of the other.

A. In what I have called true syrup from the standpoint of the food chemist these products are made by the direct evaporation of the sap of sugar producing plants, that is, by a mere driving off of water, and the solids contained in the syrup are practically the same as those contained in the original sap, only condensed, concentrated. There are slight changes that go on in this concentration; there is invariably a slight caramelization, that is, a burning of the sugar, and a slight inversion of the sugar, but there are no deep-seated

chemical changes. Whereas in the manufacture of commercial glucose from starch, it is necessary to use an extraneous substance, a mineral acid, for the production of the glucose, and the changes that take place in the starch are very deep-seated, chemically speaking.

65 Q. Now on the question of the wholesomeness or unwholesomeness of the article glucose when produced in this way, what do you say as to any chance or liability by reason of the necessity for the use of the acid of there being unwholesome results?

Mr. FAIRCHILD: We object to that, because that is immaterial under the statute.

Court: Why?

Mr. FAIRCHILD: Because the statute permits the sale of the article under the name of glucose and doesn't condemn it if it is sold under that name.

Mr. OLIN: We concede that, but we also contend that because of the way it is produced the consumer is entitled to know that it is glucose instead of some other syrup that isn't made in that way.

Mr. FAIRCHILD: That relates entirely to the name under which it is sold and not to the healthfulness of the article as it is sold.

Mr. OLIN: If there is that difference, if the article cane syrup, maple syrup, sorghum syrup, and so on, is made in one way, which does not require the use of an acid, and glucose can only be made by the use of acid, we have a right to show as we contend that by reason that this is a manufactured product in that way any liability there may be of unwholesomeness following from the manufacture of it as compared with the other article that isn't manufactured in that way.

Court: The court will adopt a somewhat liberal rule in permitting the introduction of evidence, and under that rule, this answer may be received.

Exception by defendant.

A. Because of the necessity of using a mineral acid in the conversion of the starch into glucose, any deleterious impurities present in mineral acids will find their way into the glucose. Glucose
66 has been manufactured which contained enough arsenic, due to the presence of arsenic in the acid used in its manufacture, to cause poisoning. Some years ago in Manchester, England, there was a case of wholesale poisoning, wholesale arsenic poisoning, which was traced to the consumption of beer that had been made from glucose or with glucose that contained arsenic, and the arsenic was traced finally to the iron pyrites from which the sulphuric acid was made.

Q. Now, is there any such liability as that incident to the manufacture of the cane or sorghum syrup?

A. No sir. There are also some who have contended that glucose manufactured in certain ways, perhaps due to overheating, may contain deleterious substance. But the great weight of evidence indicates that when glucose is properly prepared it must be regarded as a perfectly wholesome food product.

Q. Do you know, doctor, whether these standards that were prepared by the committee named by you and promulgated by the secretary of agriculture were in existence at the time of the enactment of chapter 557 of the laws of 1907?

A. Yes sir they were.

Q. And whether or not those standards have been changed or modified since?

A. They have not, because the right to establish standards was taken from the secretary of agriculture very shortly after these standards were promulgated.

Q. Have you got with you a true copy of the circular thus promulgated by the secretary of agriculture, known as Circular No. 19?

A. I have. And I know it is true because I read proof on it.

Q. You do know that that is correct, do you?

A. Yes.

Q. And it was from this circular that you read the definition of glucose and syrup, or refiners' syrup?

67 A. Refiners' syrup, yes sir.

Q. Did you also as a part of that work establish a standard for the term "syrup"?

A. Yes sir.

Q. And sugar cane syrup?

A. Yes sir.

Q. And sorghum syrup?

A. Yes sir.

Q. Maple syrup?

A. Yes sir.

Q. And sugar syrup?

A. Yes sir.

Q. Are the definitions of those syrups found on page 10 of this circular?

A. Yes sir.

Q. You also determined, did you, the standard for starch sugar, did you?

A. Yes sir.

Q. And that is found, is it not, on the same page?

A. Yes sir.

Mr. OLIN: We offer in evidence the standards as thus determined of those terms, and also of molasses, found upon the same page, is it not?

A. Yes sir.

Mr. OLIN: Molasses and Refiners' syrup, and then of the different syrups, and of starch sugar. Glucose has already been given.

Mr. FAIRCHILD: I object to that as incompetent. There is no power in this committee that has been referred to to give any definition of syrup or to give any definition that would bind a citizen of Wisconsin, and because the standards promulgated by the Secretary of Agriculture are not legal standards in the State of Wisconsin.

68 COURT: Received subject to objection.
Exception by defendant.

Q. Does this Circular No. 19 contain, Dr. Fischer, on the fourth page thereof a statement of the principles on which the standards are based?

A. Yes sir.

Q. Being nine in all of such different propositions, are there not?

A. Yes sir.

Q. You might state, apart from this statement if you will, doctor, generally the principles upon which the standards were determined as thus reported by this committee to the secretary of agriculture.

Mr. FAIRCHILD: I make the same objection to that, and there is nothing in the statute referring to these principles, in addition to the objection I made before.

Received subject to the objection.

Exception by defendant.

Q. Among the principles on which the standards published in Circular No. 19 are based are the following: The standards are expressed in the form of definitions with or without accompanying specifications of limit in composition.

Mr. FAIRCHILD: He is simply reading the printed standard. What is the use of taking the time.

Mr. OLIN: I am going to offer this page in evidence. Perhaps that is the shortest way of getting at it.

Mr. FAIRCHILD: Wouldn't it be a good deal shorter.

Mr. OLIN: Well, we offer page 4 in evidence that contains those principles.

Mr. FAIRCHILD: We object to it as incompetent.

Mr. OLIN: You don't object to it because we haven't got the original.

Mr. FAIRCHILD: No, I don't object to it for that reason.
69 I understand these are publications which are issued by the department, which may be used I think according to the statute.

Court: Received subject to the objection.

Exception by defendant.

Page 4 offered and received in evidence is as follows:

"Principles on Which the Standards are Based.

The general considerations which have guided the committee in preparing the standards for food products are the following:

1. The standards are expressed in the form of definitions, with or without accompanying specifications of limit in composition.
2. The main classes of food articles are defined before the subordinate classes are considered.
3. The definitions are so framed as to exclude from the articles defined substances not included in the definitions.
4. The definitions include, where possible, those qualities which make the articles described wholesome for human food.
5. A term defined in any of the several schedules has the same meaning wherever else it is used in this report.

6. The names of food products herein defined usually agree with existing American trade or manufacturing usage; but where such usage is not clearly established or where trade names confuse two or more articles for which specific designations are desirable, preference is given to one of the several trade names applied.

7. Standards are based upon data representing materials produced under American conditions and manufactured by American processes or representing such varieties of foreign articles as are chiefly imported for American use.

8. The standards fixed are such that a departure of the articles to which they apply, above the maximum or below the minimum limit prescribed, is evidence that such articles are of inferior or abnormal quality.

70 9. The limits fixed as standard are not necessarily the extremes authentically recorded for the article in question, because such extremes are commonly due to abnormal conditions of production and are usually accompanied by marks of inferiority or abnormality readily perceived by the producer or manufacturer."

Q. It may be before we get through, doctor, essential to understand the meaning of the term "levulose." I wish, if you can, you would explain that term.

A. Levulose is a sugar that is contained together with dextrose in honey, in many acid fruits, and is produced together with dextrose in the inversion of sucrose, and it can be prepared also by the action of acid upon inulin.

Q. Why is it called levulose, if you know?

A. It is called levulose because it is levo-rotary; that is, it turns the plane of polarized light to the left in contradistinction from dextrose, which turns it to the right.

Q. And it is properly called a sugar, is it not?

A. It is properly a sugar.

Q. Doctor, I wish you would state a little more fully than you have the terms under which this product was known to the trade which we speak of here as glucose?

Mr. FAIRCHILD: When?

Mr. OLIN: Well, you may limit it any time you choose.

Mr. FAIRCHILD: I am not asking you to limit it, but your question didn't disclose.

Q. Well, right along up to the present time this present law of 1907 was enacted.

Q. When I first became connected with the dairy and food commission—

Court: Fix that date now.

71 A. January the 17th, 1903, we found on the markets of Wisconsin glucose mixtures containing over seventy-five per cent glucose and generally as high as ninety, sold under such names as Fancy Table Syrup, Golden Syrup, Crystal Drips, Rock Candy Drips, etc. The mixtures that were sold under the name of molasses contained less glucose, between fifty and sixty per cent. Quite a number of such mixtures, containing perhaps sixty

per cent of glucose and forty per cent of syrup were sold as pure Louisiana molasses. Others containing sixty per cent of glucose and forty per cent of sorghum were sold as pure sorghum. We found some samples of honey which consisted largely of glucose, one sample that was purchased by the Wisconsin state board of control—

Mr. FAIRCHILD: I object to that as incompetent and immaterial.

Q. You needn't go into that part, that particular one.

A. As high as eighty per cent of glucose I found in honey.

Q. The results of your work were reported in a general way in the report of the dairy and food commissioner, were they not?

A. Yes sir.

Q. Now, all this time how was this article glucose labeled that was being sold in barrels to the manufacturers of candy?

A. As glucose.

Q. And what do you say here about the use of the term corn syrup prior to this time?

A. Prior to about 1905 very few, if any, samples of glucose mixtures came to our laboratory labeled corn syrup.

Q. How were they labeled, the way you have indicated?

A. Yes sir.

Q. Did you have anything to do with the framing of the law of 1907?

A. Yes sir.

Q. Known as chapter 557 of the laws of that year?

A. Yes sir, I believe so, if that is the present law on syrup mixtures and glucose mixtures.

72 Q. Well, that is. Can you state when the change took place of labeling the product glucose sold to the candy manufacturers and labeling it Corn Syrup?

A. The change was made after the decision of the three secretaries—

Q. Well, that fixes the date. I don't care about going into that decision, but about what time was that, if you remember?

A. I think it was late in the fall of 1907 or early in the year 1908.

Mr. OLIN: It is agreed that February 13, 1908, is the date of that decision.

Q. It was at that time?

A. After that time.

Q. Now, you state, doctor, as I understand you have, that it is not proper in your opinion to speak of this product glucose, designated as a food product, under the name of syrup?

A. As I stated before, I believe that for food purposes, the term syrup should be restricted to the concentrated sap of sugar producing plants. I believe that that is the common understanding of the public of the word syrup, the consuming public; altho, as I stated before, the term syrup is used in chemistry and technically, some times even so broadly as to include any thick liquid. Thus in chemistry we speak of some substances as syrupy that could not

by any means be used as food products. For example, concentrated phosphoric acid, containing eighty-five per cent of phosphorus, is known as syrupy phosphoric acid. And if the definition of syrup is to include any thick sweet liquid, then glycerin ought to come under the head of syrup too. Then again the ordinary dictionary definitions, the definitions found in such dictionaries as Webster's International, the Century, and the Standard with one exception restrict the word syrup to saccharine solutions and solutions that do not contain any such substances as dextrine in large proportions, and in that one exception, which is the Standard dictionary, the definition for syrup is first given as a thick, sweet liquid, then specifically, under 1, 2 and 3, the definition follows which restricts the word syrup to saccharine solutions.

Q. You think as a food product it should be so restricted?

A. I think as a food product it should be so restricted, yes sir.

Recess until nine o'clock A. M. December 29, 1908.

DECEMBER 29, 1908—Nine a. m.

Direct examination of Dr. FISCHER resumed by Mr. OLIN:

Q. Doctor, you stated you had something to do with the preparation of this law. What reason, if any, can you state was there for dividing this into three divisions—as a practical question in the administering of the law?

Mr. FAIRCHILD: Objected to as incompetent and immaterial. It is not a question of the administering of the law, but the construction of it.

Court: Have you any authority upon that?

Mr. FAIRCHILD: No, I can't say that I have any particular authority. I think perhaps the law speaks for itself. I will get at it in another way.

Objection sustained.

Q. Are there text books on food analysis published in this country, doctor?

A. Yes sir.

Q. Are you familiar with them?

A. Yes sir.

Q. And what do you say as to the term that is applied to this product generally in the text books in this country?

A. The term to which preference is given is the term glucose. That is, for the unmixed product I am speaking now. And altho the text books, some of them at least, give the name corn syrup as a name under which glucose is also sold in this country, in the text proper of their book they use the term glucose right along, and in the official methods of analysis of the Association of Official Agricultural Chemists the term glucose is used exclusively as the name for this product.

Q. What do you say about the state food chemists in reporting upon this product?

A. They also use the term glucose practically exclusively, if not exclusively.

Q. Have you with you, doctor, any of the bills of this Corn Products Company for the sale of its products to candy manufacturers?

A. Yes sir.

(Paper produced and marked Exhibit A.)

Q. What is this paper you have presented, doctor, that has been marked Exhibit A for identification?

Q. That is a bill of sale which was given to me by Mr. Teckemeyer of the Teckemeyer Candy Company of Madison, Wisconsin, some time last summer. It was a bill of sale from the Corn Products Manufacturing Company, Chicago, for fifty barrels of Crystal 3 Star Glucose.

Q. What is the date of the bill?

A. June the 4th, 1907.

Mr. OLIN: We offer it in evidence.

By Mr. FAIRCHILD:

Q. I would like to ask a question or two before it goes in. Doctor, do you know whether this bill of goods was ordered by Mr. Teckemeyer to be shipped as glucose?

A. That was Mr. Teckemeyer's statement to me and my understanding.

Q. That he ordered it specifically to be shipped to him as glucose?

A. I think so. Mr. Teckemeyer used the word "glucose" right along.

75 Mr. FAIRCHILD: I object to it then as immaterial.

Court: It may be received.

Exception by defendant.

Exhibit A is hereunto attached and made a part hereof.

By Mr. OLIN:

Q. Are you familiar, doctor, with the report of the National Academy of Sciences made some time in 1884 I believe?

A. Fairly familiar with it.

Q. That was a committee appointed by the National Academy of Sciences to investigate what, if you know?

A. To investigate the methods of manufacture and the deleteriousness or the wholesomeness of glucose and grape-sugar.

Q. Have you got any book with you that shows the exact words used in designating the committee or the objects rather for which the committee was appointed?

A. I have not. I have an abstract of this report written by one of the members of this committee, Professor Remsen.

Q. Of Johns Hopkins?

A. Johns Hopkins University for the Universal Encyclopedia, in which he merely speaks of it as the report on glucose.

Q. To refresh your recollection, wasn't it a committee appointed

by the National Academy of Sciences to investigate in full the composition and properties of the article commercially known as glucose or grape-sugar?

A. I believe so, altho I have no book which gives that statement in that way.

Q. Do you know what the usage in England and Germany and France is as to the term that is used to designate this product?

A. The common term by which this product goes in these countries is starch-syrup. Glucose is used to some extent in England, or sometimes starch—glucose it is called, and in France the word

glucose is used. In the official methods of analysis issued
76 by the French government they use the term glucose for this preparation. In Germany the term glucose has a different significance. The term glucose is there used either as designating a class of sugars of a certain composition as $C_6H_{12}O_6$, or

more specifically, to designate one of that class, that is, dextrose.

Q. You are familiar with the work of Gerard et Bonn.

A. Yes sir.

Q. Is that a practical treatise of the analysis of food products?

A. It is. It is the most recent one I believe in the French language.

Q. That uses what term in designating this product?

A. Glucose.

Q. That is a French work?

A. That is a French work.

Q. Are you familiar with von Wagner's Practical Treatise on the Manufacture of Starch, Glucose, Starch Sugar and Dextrin—a text book?

A. Yes sir, I am familiar with the English or the American edition of it rather.

Q. There is an American edition of that, is there not?

A. Yes sir, published in 1881.

Q. And edited by Robert H. Kutter?

A. Yes sir, a practical glucose manufacturer and president of a glucose company.

Q. Of Philadelphia?

A. Yes sir.

Q. That designates the term we are dealing with here in what manner?

A. The title of the book is called "Glucose".

Q. The title of the whole book is?

A. The title of the whole book is "Starch, Glucose, Starch sugar and Dextrin" as it deals with the manufacture of these four
77 articles of commerce.

Q. Does it say anything about corn syrup?

A. I fail to find any reference to the term corn syrup in either the title or the body of the book, altho in a few places I believe the term starch syrup is used, though in most places glucose.

Q. The word glucose means itself what?

A. The word glucose comes from a Greek word meaning sweet.

Q. You speak of the term as having a different meaning in Germany?

A. Why, the term glucose in a restricted sense, chemically speaking, has the same meaning everywhere, and the word glucose, as I stated before, represents a class of sugars of a certain composition, $C_6H_{12}O_6$, to which both dextrose and levulose belong, and the synonym for dextrose is dextro-glucose. In Germany, as I stated, the term glucose is never used as applying to the product in question, altho it is used to some extent in England and to some extent in France, and, commercially, speaking, practically exclusively in this country as far as I know.

Mr. FAIRCHILD: What is used in this country?

A. The term glucose for the thick liquid that is made by the incomplete hydrolysis of starch.

Mr. OLIN: We offer in evidence at this point the first samples B and C, which are made a part hereof and to be returned to the supreme court herewith.

Q. Did you determine the percentage by your analysis of the dextrin that you found in these two samples?

A. I did.

Q. And what did you ascertain the facts to be?

A. I found in sample 1258 H. C. L., Exhibit C, marked T. H. Grady, by the precipitation method 25.3 per cent of dextrin. By the rotation method 23.6 per cent of dextrin.

Q. And as to the McDermott sample?

A. Sample marked 1259 H. C. L., also B. McDermott Sons, 78 I found it contained, by the precipitation method 26.06 per cent, and by the fermentation method 24 per cent of dextrin.

Q. Did you determine the mucilage of dextrin in the whole mixture in each case?

Mr. FAIRCHILD: He hasn't explained the term mucilage yet.

Q. Well, explain it, what is mucilage of dextrin.

A. I believe that I stated yesterday that mucilage of dextrin was officially recognized in the National Formulary as a solution in water of dextrin, composed of one part of dextrin and two of water.

Q. Now, with that explanation will you state the amount of mucilage of dextrin you found in the whole mixture in each case, taking the Grady sample first, the same as before?

A. Well, I calculated on a somewhat different basis from that formulary. I calculated the dextrin as dissolved in one-half of its weight of water, and according to that I had mucilage of dextrin 35.4 per cent in one instance and 36 per cent in the other instance. That would make quite a thick mucilage. It is two parts of the gum and one part of water.

Q. Then do I understand you, to make it plain, that of this whole body of the sample you found in one case 35.4 was made of mucilage of dextrin and in the other case 36 per cent.

A. Yes sir.

Q. I will ask you to state whether or not this mucilage of dextrin is in any sense a starch or a sugar?

A. It is not.

Q. And why do you say that?

A. Dextrin can in no sense be regarded as a sugar, either chemically or physically or organoleptically. And mucilage, I do not see how that could be recognized as a syrup—certainly not for food purposes. I don't think in any sense of the word, I don't think even physically—we must distinguish, very broadly speaking even, we must distinguish between substances having a
79 mucilaginous nature and substances having a syrupy consistency.

Q. You use syrup then in the sense of having a sweetness?

A. No, merely as far as consistency is concerned.

Q. Even on that basis of division you would make a distinction between—

A. Yes, in describing liquids we use such terms as oily, syrupy or mucilaginous without respect to the chemical nature of the substance. Thus in the United States Pharmacopæia oil of vitrol or concentrated sulphuric acid is described as having an oily consistency altho of course it is no oil, not related to oil. Glycerin is described as having a syrupy consistency, and concentrated phosphoric acid is described as having a syrupy consistency, altho of course we can not regard these substances as syrups.

Q. When you are speaking of food products you wouldn't?

A. Well, certainly not, or chemically speaking either.

Q. Would that same rule be true as to the use of the term milk, for illustration?

A. Why, yes, the term milk is defined in all dictionaries, I believe, as the secretions of the mammary glands of female mammals, but even that definition is much too broad to cover the food products known as milk, and in fixing a definition for milk as a food product the term can fairly be restricted to cow's milk, and not only to cow's milk but milk from healthy cows, and milk of a certain quality, containing a certain minimum of fat and of solids and further restricted to milk that is produced within a certain time, that is, excepting that produced within a certain time before and after calving. Then the term milk is also defined in the Century dictionary as including anything having the appearance of milk, as the juices of the milkweed and other similar plants whose juices are white in
appearance. Or it would include, according to that defini-

80 tion, the milk of the cocoanut, under the unmodified term milk. And in the Century Dictionary where milk even includes the spat of the oyster before it is discharged, to say nothing of the use of the term milk to apply to any substance having a milky appearance, like the milk of lime, which is calcium hydroxide in suspension in water, and a good many other similar instances.

Q. What do you say as to the use of the term Golden Syrup as applicable to the product designated as glucose?

A. I do not think it is a proper term.

Q. Why do you say you think it is not applicable to glucose as an honest, fair or proper description of glucose?

Mr. FAIRCHILD: I object to that as not involved in this case in any way at all.

Court: How is it involved here?

Mr. OLIN: Well, it shows I think the necessity for this very law, that this should not be advertised as Golden Syrup, or a syrup at all, especially Golden Syrup.

COURT: Well, isn't the only question here the question of selling it as Karo Corn Syrup?

Mr. OLIN: Well, that perhaps is true in this particular case, but not in their advertisements or in other cases of this company, they advertise it to show it as Golden Syrup, as a reason why people should buy it, and I want to show that that is a term applicable only to refiners' syrup.

COURT: How does that affect the position of this defendant before the court?

Mr. OLIN: Well, as I said perhaps in the opening, we are trying this case rather broadly as a test case. If we are to be limited—

Mr. FAIRCHILD: I don't wish to limit it in any sense of the word as to corn syrup or Karo Corn Syrup. I want the testimony to be just as broad as Mr. Olin can possibly make it on that, but the use of other terms is another proposition.

81 Mr. OLIN: We have one of your own cans on which that term is used, "Golden Syrup."

Mr. FAIRCHILD: "Golden Corn Syrup"?

Mr. OLIN: No, "Golden Syrup."

Mr. FAIRCHILD: Applying to corn syrup?

Mr. OLIN: Yes, applying to corn syrup.

COURT: I want to permit you to take any testimony that may be material to the issue. It doesn't appeal to me now that it is material, but I will take the testimony and later consider whether it has any bearing upon the controversy in my determination.

Exception by defendant.

A. The term corn syrup has long been used as a synonym, especially in England, for refiners' syrup or some similar byproduct in the manufacture of sugar.

Q. Before passing to this next subject, have you with you dextrin that you took from these substances that were sold?

A. Yes sir, I have a sample of dextrin that I isolated from sample 1258 H. C. L.

Mr. FAIRCHILD: Is that Grady's or McDermott's?

A. Grady's.

Q. You may produce it if you will?

A. And also a solution of dextrin in water, and also a solution of some dextrin from sample 1259 H. C. L., a solution in water.

Mr. OLIN: Now, the first we will have marked for identification is Exhibit D. Now what is Exhibit D?

A. Exhibit D is a sample of dextrin which I isolated from sample 1258 H. C. L.

Q. Is that in any sense a sugar?

A. No sir.

Q. And if dissolved in water it makes what?

82 A. A mucilage.

Q. Did you do that?

A. I have a sample here dissolved in water, a large amount of

water, it is not a very heavy mucilage on that account; if I used less water or more dextrin, it would be correspondingly heavier in consistency.

Mr. OLIN: I will have this marked for identification Exhibit E.

Q. Now, what is Exhibit E?

A. Exhibit E is a solution in water of some dextrin from Exhibit D.

Q. Now that's mucilage, is it?

A. That is a mucilage, mucilage of dextrin.

Q. Is that used for instance in the preparation of postage stamps?

A. It is a mucilaginous substance in most commercial mucilages now, and after it is applied moist and dried it is the gummy substance on the back of postage stamps and labels, etc.

Q. Now what is Exhibit F?

A. Exhibit F is a solution in water of some dextrin which I obtained from sample 1259 H. C. L. The bottle containing most of the dextrin broke and I rescued only a small portion and dissolved it.

Mr. OLIN: We offer these exhibits not heretofore offered in evidence, running down to and including Exhibit F, which exhibits are made a part hereof and to be returned to the supreme court herewith.

Mr. FAIRCHILD: What is the purpose of this line of testimony? I object to it because it is purposeless.

Mr. OLIN: We want to show by testimony and ocular demonstration also what this product means, and that there is an element in it that is in no sense a sugar or syrup.

Mr. FAIRCHILD: What materiality is there to that when it is permitted to be sold under that name by the statute?

Mr. OLIN: We contend that it isn't permitted to be sold as corn syrup.

83 Mr. FAIRCHILD: You are describing glucose now.

Mr. OLIN: Yes, and we are describing it for the purpose of showing that it should be designated as glucose and not something else, and that the consumer is entitled to know what it is, and we have the right to presume that the consumer knows, or at least can ascertain what glucose is. It is simply showing the manufacture of the article, the same as in an oleomargarine case.

Mr. FAIRCHILD: Well, I am simply inquiring your object in doing it. I am not objecting to it.

Q. Now, doctor, I will ask you to state what that substance is that is in Exhibit marked number 1?

A. This is a sample of glucose of forty-two degrees Baume. That represents its specific gravity.

Q. Is that the color and consistency of what is known in the market commercially as mixing glucose?

A. Yes sir.

Q. And was purchased from what company?

A. It was obtained from Sprague, Warner & Company?

Q. Of Chicago?

A. Yes sir.

Q. Doctor, I will show you a bottle marked for identification Exhibit 1a and you may state what that is?

A. This is a sample of confectioner's glucose. It is of heavier body. I believe it is forty-three degrees Baume. And it is bleached or it contains sulphur dioxide.

Q. I show you now, doctor, a bottle marked for identification on the outside as 1b. What is that?

A. This is a sample of confectioner's glucose which I obtained directly from a barrel tapped in my presence at the Teckemeyer Candy Company in this city.

Q. With what labeled on the barrel?

84 A. The label on the barrel?

Q. Was it this one we had here?

Mr. FAIRCHILD: I object to that, your honor, as not competent. We don't know anything about that article at all, where it came from or anything about it, and I don't see how it can possibly be involved in any inquiry that is material here.

Mr. OLIN: I simply want to identify it now.

Court: He may answer.

Exception by defendant.

A. The stencil on the barrel from which that sample was taken was as follows: "Corn Products Manufacturing Company U. S. A. Confectioners' Crystal." Then three marks indicating stars, 3 star I suppose. 43 in numbers, "Glucose U. S. Standard. Guaranteed under Food and Drugs Act June 1906. Serial Number 311. Batch U. Z. 221." Then a capital U, capital C. I might state that when I received that sample some time last summer it was colorless, like Exhibit 1.

Q. It has become somewhat discolored since?

A. Yes sir.

Q. While we are on that, do you know how this light color is produced, of the mixing glucose shown in Exhibit 1?

A. No sir, I do not. It was formerly produced by means of a sulphurous dioxide, as I understand it, but since then samples of glucose that we have examined contain no sulphur dioxide, and I don't know how they get rid of the color.

Q. I show you now a bottle marked for identification Exhibit 1c. You may state what that is.

A. Exhibit 1c is a sample of dextrose or dextro-glucose, manufactured by C. A. F. Kalbaum of Berlin.

Q. You spoke yesterday of getting, as I remember, a starch sugar if you followed the process beyond a certain point instead of

85 getting glucose?

A. Yes sir.

Q. Would you get this product which you hold in your hand?

A. Not directly. That would necessitate considerable purification of the commercial starch sugar.

Q. Then this is a finer product?

A. It is supposed to be chemically pure, or as near chemically pure as you can obtain it, dextrose.

Q. It is in the form of crystals?

A. Yes sir.

Q. I now show you a sample bottle marked for identification Exhibit 1d, and what is that?

A. Exhibit 1d is a sample of malt sugar or maltose manufactured by the same firm.

Q. I show you a bottle marked for identification Exhibit 2, and what is that?

A. Exhibit 2 is a sample of refiners' syrup obtained from Sprague, Warner & Company as good grade refiner's syrup.

Q. I hand you now a bottle marked for identification Exhibit 3. You may state what that is?

A. Exhibit 3 is a sample of refiner's syrup of Sprague, Warner & Company as medium grade refiner's syrup.

Q. Both of those are the same syrup, one being a better grade than the other?

A. Yes sir.

Q. I show you now a bottle marked for identification Exhibit number 4. State what that is?

A. Exhibit number 4 is composed of a mixture of eighty-five per cent of Exhibit number 1 and fifteen per cent of Exhibit number 2.

Q. That is, mixing up the glucose, the first number 1 and the better grade of refiner's syrup?

86 A. Yes sir.

Q. In the preparation of eighty-five of glucose and fifteen per cent of refiner's syrup?

A. Yes sir.

Q. And you get that darker color?

A. Yes sir.

Q. I now hand you a bottle marked for identification Exhibit number 5. You may state what that is?

A. Exhibit number 5 is a glucose mixture composed of eighty-five per cent. of Exhibit number 1, or rather the same, glucose of the same sort, and fifteen per cent of refiner's syrup identical with Exhibit number 3.

Q. The only difference between number- 4 and 5 is then that in one case you used the better grade of refiner's syrup, and in the other the second grade?

A. Yes sir.

Q. I hand you now a bottle marked for identification Exhibit number 6 and you may state what that is.

A. Exhibit number 6 is mucilage of acacia made by dissolving gum acacia, or gum arabic as it is also known, in water.

Q. There is no sweetening to that at all?

A. No sir.

Q. I show you now number 7, marked for identification Exhibit number 7, and what is that?

A. Exhibit number 7 is mucilage of acacia which has been sweetened with an artificial sweetener, namely, saccharine, a coal tar product.

Q. That is not a sugar, but it is a very sweet product.

A. It is not a sugar. In fact it has absolutely no food value.

Q. But its relative sweetness to sugar is what?

A. In its purest condition it is said to be 550 times as great as sugar.

87 Q. I show you bottle marked for identification Exhibit number 8. You may state what that is?

A. Number 8 is a solution of commercial dextrin in water. It is in fact mucilage of dextrin.

Q. Is that the same kind of substance that you have already described as having found in these articles?

A. I will not say that it is exactly the same. It is similar, because dextrin is not a definite chemical substance, but various dextrins consist of mixtures, that is, various commercial dextrins consist of mixtures of different substances known as dextrin. We have a dextrin that is still somewhat closely allied to starch; amylo-dextrin, erythro-dextrin. Another one known as achio-dextrin.

Q. Would you say that any of these contain syrup or sugar?

A. None of them are sugars.

Mr. FAIRCHILD: None of them are sugars?

A. No sir.

Q. I show you now a bottle marked for identification Exhibit Number 9. What is that?

A. Exhibit number 9 is mucilage of dextrin sweetened with saccharine.

Q. The same as the previous article excepting sweetened with this coal tar product?

A. Yes sir.

Q. I show you now a sample marked for identification Exhibit number 10. You may state what that is?

A. Exhibit number 10 is a solution containing eighty-five per cent of phosphoric acid, known commercially as syrupy phosphoric acid.

Q. That term syrupy is used in describing it?

A. On account of its consistency.

Q. I show you now a bottle marked for identification Exhibit number 11. You may state what that is.

A. Exhibit number 11 is a sample of glycerin.

88 Q. I show you now a bottle marked for identification Exhibit number 12. You may state what that is.

Q. Exhibit number 12 is a sample of cane syrup obtained from Sprague, Warner & Company.

Q. Is that the ordinary color of cane syrup?

A. It is the ordinary color, and it also has the appearance of cane syrup in which some of the sugar is crystallizing out there.

Q. That would make it look a little darker?

A. A little turbid at least.

Q. I show you now a sample marked for identification Exhibit number 13. You may state what that is?

A. Exhibit Number 13 is a sample of sorghum syrup obtained from Sprague, Warner and Company.

Q. Would what you said about the other apply to this, about its turbid appearance?

A. Yes sir.

Q. I now show you a sample marked for identification Exhibit Number 14. You may state what that is.

A. Exhibit Number 14 is a sample of maple syrup produced by one of our inspectors, Mr. Van Duser, on his own farm from his own trees.

Q. I now show you a sample marked for identification Exhibit number 15. You may state what that is?

A. Exhibit number 15 is a portion of sample 1259 H. C. L.

Received in evidence and made a part hereof.

Q. The McDermott sample, isn't it?

A. Yes sir.

Q. I now show you a sample marked for identification Exhibit number 16. You may state what that is.

A. Exhibit number 16 is a portion of sample 1258 H. C. L. the Grady sample?

Received in evidence and made a part hereof.

Q. Samples four and five, were those you made in the way you have indicated?

A. Yes sir.

89 Q. And samples 15 and 16 are from the articles sold?

A. Yes sir.

Q. And 14 is of the maple syrup?

A. Yes sir.

Q. And maple syrup is placed in the middle here and the two articles sold on the outside and the two you produced by mixing in the ratios you stated from Sprague, Warner & Co. to your left, that is right, is it?

A. Yes sir.

Q. Can you state, doctor, the proportions, I think you haven't stated yet, of the ingredients that you actually found in these two samples you analyzed?

A. I can not exactly state the proportions, but I can say that the samples both contain approximately eighty-five per cent of commercial glucose of forty-two degrees Baume strength and fifteen per cent of refiner's syrup product.

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, are you familiar with the manufacture of glucose?

A. Not personally, only generally, from a reading knowledge and from conversation with those who have seen glucose made.

Q. You have never been in the factory so as to observe the process of manufacture?

A. No sir.

Q. What you learned of it then has come second-hand entirely?

A. Yes sir, you may call it so.

Q. Are you familiar even from books with the method of manufacture?

A. I have read them, but I haven't them in mind so I would want to repeat them here as an expert.

Q. Do you know what the first process is in the manufacture of glucose from corn?

90 A. The first process, as I said before—I don't want to pose here as an expert on the manufacture of glucose—the first process, as I remember it, is the steeping of the corn.

Q. For what purpose?

A. For making possible the separation of the starch from the other ingredients of the grain, the corn.

Q. There are no acids used in doing that, are there?

A. Why, formerly acids were used. I don't know but what—

Q. I mean now as it has been manufactured and has been manufactured during the last five or six years?

A. Yes sir, sulphuric acid is used to the best of my knowledge.

Q. In bringing out the starch from the corn?

A. In the steeping, to prevent fermentation, yes sir.

Q. Is the starch produced in the manufacture of glucose in the form that it is commercially used?

A. As I understand it, a purified starch is manufactured and then a paste is made out of it.

Q. I mean is the starch that is produced in the manufacture of glucose in the corn in the condition that it is in when it is put upon the market as starch?

A. I don't suppose it is ever dried. I see no necessity for drying it.

Q. I am not asking you about the necessity. I am asking you about the fact.

A. Well, do you refer to the condition as to its being moist or dry?

Q. Yes, and in the form that it is sold commercially?

A. I believe it is used in the moist condition, but otherwise it is practically identical as far as I know with the starch as put on the market, corn starch.

Q. Well, the manufacture of glucose is a continuous process, is it not, from the kernel of corn to glucose?

91 A. Yes sir. But the difference between a moist starch and a dry starch—

Q. I am not asking you for any argument at all, doctor.

A. All right.

Q. Now, when the acids are applied—and I will ask you there what acid is used in the manufacture of glucose?

A. To the best of my knowledge in this country at the present time, hydrochloric acid or muriatic acid.

Q. Well, that has been so, has it not, for a number of years?

A. I believe so, in this country.

Q. Well, in the manufacture of glucose will you tell us whether or not the corn by the application of the acid is first reduced into the form of dextrin?

A. As to the exact method of decomposition of the starch there is a difference of opinion, and I don't want to—

Q. No, I am asking you a specific question now, doctor?

(Question read.)

A. Well, in the first place, corn is not used, but corn starch. You

refer to the starch I suppose. The corn is not changed into dextrin, but the corn starch.

Q. After you get it into the condition of this starchy substance you have referred to?

A. Well, corn starch is changed into dextrin. The other ingredients of starch can not be changed into dextrin.

Q. Now do you mean to say that by the application of acid the corn starch, as you call it, is reduced into dextrin?

A. I wouldn't use the word reduce. It might perhaps, broadly speaking, be used.

Q. Converted into dextrin?

A. I wouldn't want to say whether you could stop the process at any point and get only dextrin. I think not. I think you would get at any point that you might want to stop the process a mixture of dextrin and maltose and dextrose.

92 Q. Will you say that you wouldn't get dextrin entirely?

A. I will not say that, because dextrin can be manufactured from starch by roasting starch, heating starch in the presence of a small amount of muriatic acid or nitric acid or exalic acid, but that dextrin is never pure as far as I know and there is always some dextrose with it.

Q. I understand you to say that you do not know whether it is first converted by the use of acid into dextrin?

A. It is my opinion that the process could never be so regulated that you would not get some dextrose and maltose with the dextrin.

Q. Do you know that in the manufacture of glucose from corn that the second stage is not maltose?

A. As I said before, there is a difference of opinion as to how starch is converted by the action of acid——

Q. Now, I want an answer to my question.

A. I must preface my remark with that, that there is a difference of opinion, and to my knowledge on that subject, I have made no experiments, it is based entirely upon my reading knowledge.

Q. Read the specific question and I want an answer to my question.

Mr. OLIN: You are making this witness your own witness.

Court: I think it is.

(Question read.)

A. I was going to answer that by first explaining my position as an expert on that subject.

Q. I want an answer yes or no to that question.

Court: I think that can be answered by yes or no.

A. I do not know of my own knowledge.

Q. Now, will you say that the third stage is not a conversion of maltose into dextrose?

A. I don't know of my own knowledge.

93 Q. Do you know why in commercial glucose in the syrupy form you find dextrin in it?

A. Because the process is not carried on far enough to change the dextrin into dextrose.

Q. Why?

A. It is not intended to be carried on far enough.

Q. That's right? Now I ask you why is it not carried on farther than it is?

A. If it were carried on farther you could not obtain a commercial product of the density in which glucose appears on the market, because the dextrose would crystal-ize out.

Q. Then in order to keep it in a syrupy form you must retain the dextrin, must you not?

A. Using the term syrupy as describing the physical condition, I would say yes.

Q. Now, you say that dextrin is not a sugar?

A. Yes sir.

Q. Will you say that all the sugary product in the starch of corn is not contained in the first stage of the manufacture of glucose, in dextrin entirely?

A. Will you please read that question.

(Question read.)

A. No more than it is in the starch—just as much as it is in the starch and no more or less.

Q. Then all the sugary elements that you find in the starch is at one stage in the manufacture of glucose to be found entirely in dextrin, isn't it?

A. There is no sugar element in starch or in dextrin either. In the breaking down of the complex molecules of starch in producing the dextrin, and then perhaps further on, the dextrose, certain chemical changes take place which are not understood, and whether or not by a splitting off of a certain particle of that complex molecule, or by the addition of water, etc. what changes take place I don't know, and whether that complex molecule of sugar is present in the starch or not I don't know and nobody else knows.

Q. Now doctor, you understand what I mean? You have the sugary element in starch, haven't you?

A. I wouldn't call it a sugary element, no sir.

Q. Well, you get sugar out of starch, don't you?

A. Yes sir.

Q. It must be in there?

A. Not as sugar, no sir.

Q. Not a sugar, no, but I say the sweet element, the sugary element, is in there to be taken out by the process of manufacture?

A. I don't see how you can look at it that way at all.

Q. Well, is that what you mean to be understood then when you say that dextrin has no sugar in it, it is not a sugar—you say it is not a sugar in the same sense that starch is not a sugar?

A. Yes sir.

Q. You don't mean that it doesn't contain the element of sugar?

A. I don't mean to say that it don't contain the carbon and hydrogen and oxygen that go into the making of sugar, at least in part.

Q. And you don't mean to say, doctor, that you can't take dextrin and make dextrose out of it?

A. I have stated several times that you can, but that dextrose is not contained in dextrin and it gives no peculiar sugary qualities to the dextrin, as little as it does to starch.

Q. Well, can't you take dextrin and make sugar out of it and have no residuent left?

A. Why, certainly, by a deep-seated chemical change. You can take a diamond and burn it up and get carbon dioxide.

Q. I don't want any argument; I simply want my questions answered. Now do you know that that chemical process is not carried on in the manufacture of glucose—the conversion of dextrin into glucose or dextrose?

95 A. I have stated a number of times that by the treatment with acids dextrin, by taking up the elements of water, can be changed into dextrose, but that dextrose is not contained in dextrin.

Q. Well, if you can turn dextrin wholly into dextrose, dextrose must be contained in dextrin?

A. No sir. You can only do that by a very deep-seated chemical change.

Q. But the elements must be contained in it?

A. The carbon and the hydrogen and the oxygen, with the exception of the additional ones that come from water, are contained in it. In what grouping I don't know, and nobody else knows.

Q. Now, do you say that there is no nutrition at all in dextrin?

A. I don't say that.

Q. Glucose, as it is ordinarily called by that name, has two forms, hasn't it, a sugary form and a liquid form?

A. Commercially speaking, yes, glucose has two forms, a liquid form and the solid form, altho' in this country the name glucose is used exclusively for liquid form and never for the solid form.

Q. You have explained about the possibility of acid being left in glucose in the process of manufacture. Do you know that that is ever so?

A. I did not want to leave the impression that there was any acid left in glucose, because I know that the acid is neutralized with an alkali and is left in the form of a salt, and if, as I believe they always do now in the process of manufacture, use sodium carbonate for neutralizing purposes, the acid would be changed; if muriatic acid is used the acid would be changed into salt.

Q. And that is all carried off, the salt that you refer to?

A. That remains in solution.

Q. But it doesn't remain in the glucose?

A. Yes sir. What I had reference to when I spoke of impurities were impurities of arsenic contained in the acids.

96 Q. Now, do you mean that nowadays there is any arsenic contained in glucose, as it is manufactured in America?

A. There is always a possibility, because arsenic is very frequently a contamination of mineral acids, and therefore unless precautions are taken to analyze the acids to insure that they are free from arsenic there is always danger of getting arsenic into the glucose.

Q. Do you know that in the process of manufacture those precautions are not taken?

A. Why, I didn't know that anybody in particular had a monopoly on the manufacture of glucose in this country.

Q. That was not my question.

(Question read.)

A. I should think they might be taken by reputable firms, but I don't know but what some firms might not take precautions. Certainly cases have occurred.

Q. I will ask you whether that is true or not, whether they do take those precautions?

A. Well I don't know everybody who makes—I am not sure that I know everybody who makes glucose in this country.

Q. Then as a matter of fact, you haven't any knowledge on that subject, have you, as to what precautions are taken by the manufacturers of glucose to see to it that no deleterious substance is left in the glucose?

A. I have no personal knowledge, no sir.

Q. You have never discovered, have you, any arsenic in glucose?

A. I have never tested glucose for arsenic.

Q. Well, in either one of these two samples did you find anything that was deleterious to the health or poisonous in any way?

A. I did not make any of the tests to determine whether there was anything deleterious in the samples, or not.

97 Q. So you wouldn't undertake to say then that there was anything deleterious or poisonous in these samples?

A. No sir.

Q. You don't mean to be understood that you personally ever knew of arsenic or any poisonous substance being found in glucose as manufactured in the United States?

A. Not to my personal knowledge.

Q. Now as to this single illustration that you gave us or incident that you gave us, in regard to arsenic being found in beer in England, how many years ago was that?

A. As I recall it, that was somewhere between 1894 and 1898. I haven't looked it up, but if my recollection serves me right it was between the years 1894 and 1898.

Q. I suppose you don't know even from your reading just how that arsenic happened to get in there?

A. Yes sir, I do.

Q. How do you understand that it got in there?

A. I believe I stated yesterday that it came from the iron pyrites which contained arsenic. The iron pyrites that were used in the manufacture of the sulphuric acid contained arsenic and it got into the sulphuric acid and from there into the beer.

Q. You don't know, however, that sulphuric acid has been used in this country at all in the manufacture of glucose in the last eight or nine years?

A. Sulphuric acid is always used in the manufacture of hydrochloric acid, and if the sulphuric acid contained arsenic it would find its way into the hydrochloric acid, so it wouldn't make any

difference which acid you used if there was arsenic originally in there, unless it had been removed.

Q. That is supposed to be a foreign substance, isn't it, one that you wouldn't ordinarily find in hydrochloric acid?

98 A. You are apt to find it in greater or less quantities in commercial hydrochloric acid—always find it—you might say always find it in ordinary commercial hydrochloric acid.

Q. But I don't suppose you know personally what precautions are taken in the matter of eliminating anything of that kind, if there should be anything in the hydrochloric acid that's used in the manufacture of glucose?

A. No sir, I don't know.

Q. Do you mean to say that the article which has been sold in this case as a table syrup has not been known as corn syrup in the state of Wisconsin by the trade and by the consumer for a number of years?

Mr. OLIN: That is objected to as immaterial.

Court: He may answer.

Mr. OLIN: I won't repeat that objection. I suppose it is not necessary to interpose it to that line of proof.

A. Why, personally I don't remember of having heard—are you referring to Karo Corn Syrup?

A. I am referring to corn syrup, whether you call it Golden Drips or Crystal Drips or Karo Corn Syrup, or what kind of corn syrup, I am talking about corn syrup—sold as corn syrup.

A. I don't remember personally of having seen any put on the market in Wisconsin under that label previous to 1905. It may have been. I testified yesterday that samples so labeled didn't come to our laboratory.

Q. That would be the only way you would know of it, would it?

A. In all probability, yes.

Q. Didn't you see advertisements of it in the newspapers?

A. I can not remember. I don't remember now.

Q. I don't suppose you do the buying in your family, of syrups?

A. No, I happen to be a bachelor.

99 Q. So far as you know then, this article, corn syrup, with one fancy name or another applied to it, has been on the market for five or six years at any rate in Wisconsin?

A. I could not deny that nor affirm it.

Q. And since 1905 you have known, have you not, that it was very extensively on the market in Wisconsin?

A. When the law was passed requiring the labeling of syrups in this state either as glucose or glucose mixtures or corn syrup a large number of brands that were formerly sold as Fancy Table Syrup and Rock Candy Drips and Honey Drips, etc., were sold subsequently as corn syrup.

Q. And extensively advertised as such too in Wisconsin?

A. I don't remember any advertisement except the Karo Corn Syrup in those years.

Q. Well, that has been very extensively advertised, has it not—well as far back as 1903, in Wisconsin, Karo Corn Syrup?

A. I don't remember just when I first commenced reading the advertisements. My recollection is about 1905. It may have been previous.

Q. Well, from 1905 on to the present time you do know that a table syrup has been sold under the name of corn syrup very extensively in Wisconsin?

A. Yes sir, from the fall of 1905 when the law went into effect.

Q. From the fall of 1905 on?

A. Yes sir.

W. Now doctor, you spoke about this not being properly a syrup — called a syrup. Have you ever in any way been associated with or connected with the National Association of State Dairy and Food Departments?

A. Yes sir.

Q. In what capacity?

100 A. I am a member and I also am chairman of a committee on standards of that association.

Q. Has the association prepared standards of its own distinct from those of the federal government?

A. At our annual meeting at Jamestown in 1907 we adopted all of the standards given in Circular No. 19 and a few additional ones.

Q. That is, at Jamestown?

A. Yes. These standards were readopted with some slight modifications at Mackinac this summer.

Q. Well, was anything said in your work there at Jamestown about corn syrup?

A. To what work do you refer, to the meeting of our committee or the meeting of our association?

Q. Well, in the reports of the proceedings of your association there was the name corn syrup applied to this article you call glucose?

A. Dr. Wagner I believe read a paper on the subject of Glucose vs. Corn Syrup, or whatever it was entitled. I don't remember the title.

Q. When did your committee first establish standards for the National Association of State Dairy and Food Departments?

A. The first standards that were adopted by this association were adopted at Jamestown in 1907.

Q. Well, was a committee appointed to prepare standards before that time?

A. Yes sir, a committee had been in existence for a number of years before that time, a committee of our association.

Q. Had your committee prepared standards and suggested them to any previous meeting of the national association?

A. No sir, our committee never had. The chairman of our committee in 1905 at our Portland meeting presented some standards which were directed—no, they weren't even directed to be
101 printed. He tried to present standards, but the rest of the committee refused to sign the standards. That was the end of it.

Q. And they were never published?

A. No sir, not those, not by our association.

Q. Who constituted that committee?

A. At that time?

Q. Yes.

A. Dr. Eaton of Illinois at that time was chairman.

Q. Who was he?

A. He was at that time State Analyst for Illinois. And Dr. Winton was a member.

Q. Where was he from?

A. Dr. Winton was the chemist of the Connecticut Agricultural Station. I was the only other member present at the Portland meeting, of that committee.

Q. Who were the members of your committee, the balance of them?

A. I really don't remember.

Q. Do you know a man by the name of E. F. Ladd of North Dakota?

A. Yes sir.

Q. What was he and—what was he?

A. E. F. Ladd is the chemist of the agricultural experiment station of North Dakota and state chemist of North Dakota.

Q. Do you know P. L. Hobbs of Ohio?

A. Yes sir.

Q. He was a member of that committee, was he not?

A. Yes sir.

Q. Who is he?

A. Dr. Hobbs is one of the chemists who had worked for the Ohio dairy and food commissioner, at least was doing work at that time.

Q. Did you say that the report on food standards suggested by the committee on revision from the National Association of State Dairy and Food departments was presented to the meeting at Portland?

102 A. No, it was not.

Q. In 1905?

A. No, it was not. The chairman of the committee—

Q. What was his name?

A. Dr. Eaton wanted to have them presented as the report of our committee, but none of the other members of the committee ever saw them until a couple of days before the report was to be handed in, and Dr. Winton and I, who were the only other members of the committee present, refused to sign the report and it never came before the association.

Q. Did you see that report?

A. I did, a few days before the meeting.

Q. Did you ever see a publication of it?

A. Dr. Eaton had quite a number of copies printed, I don't know at whose expense; not with the knowledge of any of the other members of the committee.

Q. Who was the compiler and editor of the journal of the proceedings of this meeting, doctor?

A. Why, the person who had a contract with the association for the printing of the proceedings previous to this meeting was H. B. Meyers of Chicago.

Q. Yes, Herman B. Meyers.

A. I believe that is his name.

Q. Now, I will call your attention to Exhibit 17. Will you look at page 8 of this Exhibit 17, which is entitled: "Standards and Definitions of Food Products for the National Association of State Dairy and Food Departments Suggested by the Committee on Revision of Food Standards, Edward M. Eaton, chairman, Illinois; A. G. Winton, Connecticut; E. F. Ladd, North Dakota; P. L. Hobbs, Ohio; Richard Fischer Wisconsin", and state whether this page 8 was included in the report prepared by the chairman of that committee?

A. Before I answer that, your honor, may I say something
103 in regard to heading of this—

Court: You can do that afterwards.

Q. Just answer the question now.

A. What standards do you refer to?

Mr. OLIN: Page 8, whether that was in the report as suggested by the chairman of the committee?

A. Page 8 is part of a paper—

Court: The question was whether that page 8 was in the report suggested by the chairman of the committee?

A. Yes, suggested by the chairman of the committee, yes sir.

Q. You have seen this publication, have you, before this, Exhibit
17?

A. Yes sir.

Q. Where did you see it?

A. I have stated before that I saw a copy of it a few days before the Portland meeting.

Q. Will you say that that report was not made to the Portland meeting of the chairman of your committee?

A. I will say positively that it was not.

Q. Do you know whether these standards had in any way been promulgated by the association?

A. I know they were not.

Q. Did you have nothing to do at all with the preparation of those standards?

A. Not a thing. I didn't know anything about them until a few days before the meeting, and therefore refused to sign the report of Dr. Eaton, together with Dr. Winton.

Q. Dr. Eaton is quite a capable man, is he not, professionally?

A. I do not consider him so. Capable in some ways.

Q. Well, in that report suggested by Dr. Eaton this product
104 was called corn syrup, wasn't it?

A. Yes sir, I believe. I haven't that very clearly in mind. I presume so.

Q. You can read what is said there on the top of that page in regard to whether this article is a corn syrup?

A. I find the statement, "Glucose mixtures"—

Mr. OLIN: I object to any reading from that document.

A. What product do you refer to?

Q. The product we have been discussing here, glucose, or corn syrup, whichever you may care to call it.

Q. I would hardly say that glucose under those proposed standards would be called corn syrup. The statement in these proposed standards is "Corn or glucose syrups are preparations of glucose." So I don't suppose it is intended to include glucose by itself.

Q. What is the next statement?

A. The next: "Glucose is a product of the action of acid on starch."

Q. You didn't start with the first statement, did you?

A. "Glucose mixtures are syrups made from glucose and other sugars."

Q. "Are syrups made from glucose."

(No answer.)

Q. In the first two circulars promulgating standards by the United States agricultural department the name corn syrup was used as synonymous with the word glucose, was it not?

Objected to as immaterial.

Objection overruled.

A. I believe so. I suppose you refer to the standards promulgated or established by the United States secretary of agriculture?

Q. Yes.

A. Under the provision of the agricultural appropriation act?

Q. Yes. Now was the first one of those circulars number 10?

A. I am not quite sure, I have in mind Circular Number-
105 10, 13 and 17; I am not sure about 10 though.

Q. That is right, 10, 13 and 17. I see you only mention two in this one.

A. In Circular No. 19 the statement is made that those standards are to take the place of those in Circulars 13 and 17.

Q. Doctor, you are too anxious apparently to make an argument here. Now just please answer my questions.

A. I just wanted to set the question of standards right.

(Question read.)

A. I am not certain as to that. There seems to be something wrong somewhere with the numbering of those circulars.

Q. I will eliminate the numbering then. Will you please state when the first standards were established and promulgated by the secretary of agriculture?

A. I couldn't tell you the date, and I am not sure as to the number.

Q. Approximately what date?

A. I believe about 1903 I saw them for the first time.

Q. And in that promulgation I understand that corn syrup was used as synonymous with glucose?

A. By referring to the standards I can tell you best.

Q. All right, you may refer to them if you have them here.

A. I only have a reprint of them. I think it is a correct reprint. (Referring to paper.) Yes sir.

Q. Now, I suppose in that reprint it will tell you the number of the circular, won't it, and the date of it?

A. No, that is not given.

Q. Neither date nor number?

A. Yes, the date is given. November 20, 1903.

Q. Now that was repeated and repromulgated later on, was it not in Circular No. 13?

Mr. OLIN: Same objection to all this line of testimony, receiving these standards.

106 COURT: He may answer.

A. I believe so.

COURT: All testimony relating to the standards previous to Circular 19 may be taken as if the same objection had been made and the same ruling.

Q. You have received the publication sent out by the agricultural department, have you not, embodying these first standards—Circular No. 10. Just look at that and see whether that isn't one of them (shown witness).

A. I think so.

Mr. OLIN: Which circular is that?

Mr. FAIRCHILD: This is Circular No. 10, purports to be promulgated by the secretary of agriculture November 20, 1903. I refer you to page 8 and offer in connection with his cross-examination a definition under: "Glucose syrup or corn syrup is glucose unmixed or mixed with syrup or molasses." Next: "Standard glucose syrup or corn syrup is glucose syrup or corn syrup containing not more than twenty-five per cent of water nor more than three per cent of ash."

Q. Now, I will ask you, doctor, if in Circular No. 13 (Exhibit 18), the standards, so far as glucose is or was concerned, were not just as they were in Circular No. 10?

A. I can only tell with certainty by looking at the circular. I believe they were.

Q. I call your attention to Exhibit 19, under date of December 20, 1904, purporting to have been promulgated by the secretary of agriculture as Circular No. 13 and ask you if you have seen this publication before?

A. Yes sir.

Q. Is that not the Circular No. 13 as promulgated by the secretary of agriculture under that date?

107 A. Yes sir.

Mr. FAIRCHILD: On page 9 I will offer in evidence in connection with his cross-examination, under the head of "Glucose Products" the following: "Glucose syrup or corn syrup is glucose unmixed or mixed with syrup, molasses or refiners' syrup, and contains not more than twenty-five per cent of water and not more than three per cent of ash."

Q. Now, did those standards remain as the standards of the government until the promulgation of Circular No. 19, or was there an intermediate—

A. I believe there was an intermediate circular number 17, as I recall the number.

Q. Repeating the standards contained in 10 and 13?

A. As I remember, the standards on glucose are the same in both.

Q. And the standards remained the same, did they, the government standards, until Circular No. 19 was promulgated the 26th of June, I believe, 1906?

A. As far as I know, yes sir.

Q. Is there a difference, doctor, in the names applied to this article we have been talking about, calling it glucose, when it is sold in bulk to confectioners and manufacturers of preserves and articles of that description, than when it is sold as a table syrup?

A. So far as I know it is never sold unmixed for direct consumption.

Mr. FAIRCHILD: Now, I ask that that be stricken out.

A. Well, either as and for a table syrup is what I mean.

Q. What is that?

A. It is never sold unmixed for direct consumption as and for a table syrup, if you want to put it that way.

Q. That wasn't my question. I asked you about the name, if there was any difference in the name applied to it?

A. And I said as far as I know it was never a commercial
108 commodity and therefore there couldn't be a name.

Q. What you mean to be understood is, that it is sold to manufacturers unmixed?

A. It is sold to manufacturers unmixed, yes sir.

Q. And is called usually glucose when it is sold to them unmixed?

A. So far as I know exclusively as glucose.

Q. Now, when it is called corn syrup it is when it is sold as a table syrup mixed with other flavoring syrups?

A. I wouldn't call such a mixture a table syrup, so there may be some misunderstanding in our answers. I was trying to avoid the use of "table syrup" for such a mixture. I don't believe it is a table syrup.

(Question read.)

Q. When it is sold as a table syrup?

A. Well, if it sold as a table syrup, yes, it is sold sometimes under the name of corn syrup.

Q. Well, have you known it to be sold as a table syrup under any other name in Wisconsin since 1905?

A. Such mixtures?

Q. Yes.

A. O, yes, lots of cases.

Q. When and where?

A. Samples that were brought to the laboratory that were not labeled in compliance with the law of 1905.

Q. When was that?

A. O, since the law went into effect.

Q. The law of 1907 went into effect?

A. 1905 went into effect.

Q. Have you seen it in the form — a table syrup sold as glucose?

A. Since when?

Q. Since 1905, since the act of 1905 went into effect, in May 1905?

109 A. I don't remember as to that. I would have to look up my records. Most of it was sold as Corn Syrup, Golden Glory Corn Syrup and such as that.

Q. Karo Corn Syrup?

A. Karo Corn Syrup.

Q. Now, this syrup is some times called cereal syrup, is it not?

A. I don't believe in this country.

Q. Yes, in this country.

A. I have never heard it called that.

Q. Well, don't you find it in some of the encyclopedias and in the dictionaries called cereal syrup?

A. I believe I have seen that name mentioned in some French encyclopedias.

Q. Well, in American encyclopedias, haven't you?

A. I don't think I have.

Q. Or American dictionaries?

A. I don't think I have.

Q. Have you consulted all the dictionaries on this subject, the American dictionaries?

A. I have consulted the Standard Dictionary, the Century Dictionary & Encyclopedia, the Webster's International, I believe of 1906.

Q. Have you seen the Encyclopedia Americana?

A. I don't think I have.

Q. On the subject of glucose?

A. I don't think I have.

Q. Well, you couldn't tell us whether in that work it is referred to as sometimes called cereal syrup?

A. No sir, I couldn't.

Q. It is manufactured from different cereals?

A. Glucose?

Q. Yes.

110 A. Glucose can be manufactured from any starch and therefore from the starch of any cereal.

Q. Well if it were manufactured from rye, for instance, would you see any objection to calling it rye syrup?

A. Yes sir.

Q. If it were manufactured from wheat you would find objection to its being called wheat syrup?

A. Yes sir.

Q. Even though it were the only syrup that could be manufactured from rye or wheat?

A. I would say that the term is less objectionable than the term corn syrup, but still I think that the term syrup should be restricted more. I don't think that much deception could be practiced in calling it wheat syrup or rye, not as much as in the case of corn syrup.

Q. Well, do you know any other syrup, or is there any other syrup that could be manufactured from corn than the syrup we have here in question?

A. Yes, there is.

Q. What?

A. A syrup that is made from the stalks of corn.

Q. Oh, I am talking about corn, not corn stalks, but corn, as that term is ordinarily used in the market in common parlance—corn.

A. The term corn, as I understand it, is applied both to the grain and to the plant.

Q. Well, we will apply it to the grain now.

A. As applied to the grain, I do not know of any other preparation of that character that can be made from it.

Q. Now, when you see the word corn used commercially, do you refer to the stalk?

A. It all depends in what connection.

Q. I said commercially?

111 A. O, as it is sold by the bushel for instance, no.

Q. Commercially I say, in all respects commercially. When you see it advertised in a newspaper, for instance, "corn" does that include the stalks?

A. No, not ordinarily commercially—no, not in that sense.

Q. Or if it was rye or wheat, you wouldn't understand the straw of rye or wheat, would you, to be included?

A. Not if it was sold as a commercial commodity, no.

Q. Well, rye syrup, if it was manufactured from rye, would be a more specific designation than cereal syrup, wouldn't it, for the reason, I will add, that it gives you the specific source of the syrup instead of a general source, which may apply to a number of cereals?

A. It would be more specific, but I do not think it would be more correct.

Mr. FAIRCHILD: I ask that the last be stricken out.

Court: The portion from "I do not think" may be stricken out.

Q. Is that not also true as to the use of the term corn syrup? Would not corn syrup, as applied to a syrup made from corn, be more specific than applying to the same the word cereal?

A. No, I think it would be more vague, because it wouldn't leave a clear impression in the mind of the purchaser.

Q. Well, if you couldn't extract but one syrup from corn, wouldn't it be specific to call it corn syrup?

A. If you couldn't—but you can.

Q. Now, do you mean to include the stalk again?

A. Why, yes, certainly.

Q. Now, just confine yourself to the kernel.

A. Well, as applied to the kernel I would say not, but you asked me about corn.

112 Q. Yes, when I speak of corn I mean the kernel, I don't mean the corn stalk. The commercial article I am talking about.

A. As applied to the kernel I believe it is the only article that can

be made that way and it would be more specific to call it corn syrup than it would cereal syrup?

A. As applied to the kernel, yes.

Q. Now, there are a number of sources, are there not, from which glucose may be made?

A. Yes sir.

Q. Will you name them all, doctor, as far as you can remember.

A. What are you referring to now, the sugar glucose or the commercial glucose?

Q. I am just saying glucose, I am giving that as the name and allowing you to select it. Do you mean there is a distinction between commercial glucose and glucose under any other name?

A. I believe I have already explained that distinction.

Q. That is, what you call dextrose, although it is called glucose, is a different article from the glucose of commerce?

A. Dextrose is only one of the constituents of glucose.

Q. And yet it is called glucose, is it not?

A. The article of commerce?

Q. Dextrose?

A. Dextrose isn't glucose, nor is dextro-glucose, strictly chemically speaking.

Q. Is that not one of the definitions of glucose and a synonym of the word glucose-dextrose?

A. I believe the dictionaries all say that the word glucose refers to a class of sugars, and there are a number of sugars that come into that class, among them dextrose and levulose.

Q. Now, from what sources may that class of sugars known as glucose be manufactured?

113 A. Well, I would have to take each member of the class and explain.

Q. I don't ask for any explanation, I just want the simple statement of the source.

A. Dextrose or dextro-glucose can be manufactured from any starch, as already stated, by the action of acids, and it can be obtained from honey, in which it is normally present; it can be obtained from grapes or raisins, in which it is also normally present. These are the chief sources. Dextrose is also present in acid fruits—most all acid fruits. It is present in the urine of diabetic patients, and probably found otherwise too—I don't pretend to remember all of the sources.

Q. It may be found in the juices of a great many plants, may it not?

A. Dextrose?

Q. Yes.

A. Yes, associated with levulose, and probably produced by the inversion of cane sugar in that case.

Q. But the dextrose may be taken out by itself, may it not, from the juices of a great many plants?

A. Not commercially.

Q. I didn't ask you commercially?

A. It might, small quantities; comparatively small quantities are

only present; it might be possible to isolate those, although it would be a very difficult matter.

Q. Well, it may be made from a great many wood fibers too, may it not?

A. Yes, that is one source that I haven't spoken of—in the same way as it can be produced from or similarly as it can be produced from starch, it may be from cellulose or wood fiber.

Q. And it has even been made from sawdust?

A. From the cellulose contained in sawdust, yes.

114 Q. Now, as comparing glucose that might be taken from these numerous different sources that you have referred to, would you say that if you were taking glucose from corn that it would be a more specific designation of it than it would to say glucose?

Mr. OLIN: I object to that. I may not understand it, but if I understand the witness, the line of examination here, he hasn't stated that you would get glucose, as he has used the term, from all these various things, but you get dextrose.

Q. Well, dextrose is glucose.

A. Dextrose is a glucose. It is not the glucose of commerce.

Q. I didn't say that. I said glucose.

A. And the glucose of commerce cannot be obtained from all those sources I mentioned. I want that understood.

Q. No, I am not saying that. The reason that it would not be, I suppose, might be that you couldn't get it in sufficient quantities.

A. No sir, but because there is no maltose and no dextrin. Dextrin is at least necessary to produce the character of commercial glucose.

Q. Then in order to produce commercial glucose you must have dextrin present.

A. To make the commercial liquid glucose it is necessary to have dextrin present, yes sir.

Q. Now, I suppose that glucose, sometimes called dextrose or as called dextrose, has a chemical formula of its own, hasn't it?

A. Yes, it has a formula, $C_6H_{12}O_6$. There are a number of sugars that have the same chemical formula, empirically speaking, but the structural formula is doubtless different.

Court: What is this $C_6H_{12}O_6$?

A. That is the empirical formula for the class of sugars called glucoses and therefore also for dextro-glucose.

Mr. OLIN: But is not the formula for commercial glucose?

A. Oh, no.

115 Q. Now, I understood you to say that this article known as glucose, as you call it, or corn syrup as it is sometimes called, is a wholesome food product?

A. I said when properly prepared, commercial glucose—I would consider commercial glucose a wholesome food product.

Q. Well, if there is any harmful ingredient in commercial glucose, would there be any difficulty in discovering it?

A. No sir, not a very great difficulty, considering the ordinary deleterious substances that one might expect to be present. Of

course there might be a larger number of added deleterious substances in there that would make it difficult to find out, but the ones you would ordinarily expect to find present due to carelessness of manufacture you could discover without much trouble.

Q. Well, if there was any deleterious substance in there that you say might defy ready detection, it would have to be something that would be deliberately put in there?

A. Yes sir.

Q. Which would not be in the course of manufacture?

A. Yes sir, that is what I wanted to say.

Q. Then it would have to be a willful act?

A. Yes sir.

Q. Well, that same thing applies to sugar or any product, doesn't it?

A. Certainly.

Q. That is, you could detect just as readily in glucose a harmful substance as you could in sugar or in any other product?

A. Yes sir.

Q. Now, you spoke about syrups and molasses, that acids are not used in the manufacture of molasses. Is that true?

A. I don't think I said molasses. I think I said syrups.

Q. Well, I understood you to say molasses.

116 A. Well, that is not my recollection. I did not intend to say that if I did.

Q. What is the difference, doctor, between molasses and syrup?

A. I believe molasses are the residual products, non-crystallizable, after the sugar has been separated from true syrups, and syrups are made by evaporation of the sap of a sugar producing plant, or by solution of sugar itself or of the raw sugars, the massecuite as it is called. Thus maple syrup can be made from maple sugar by simply dissolving.

Q. That is simply the arbitrary classification that has been made in these standards and not the ordinary, customary classification among scientific men?

A. Why, I think that is the classification made by food chemists in this country, yes sir.

Q. I mean among the trade and the food chemists. Do you undertake to say that that is the classification existing among the trade and among food chemists, as distinguished from the standards established by this committee or the Secretary of Agriculture?

Mr. OLIN: I understand the committee was made up of food chemists.

Q. I am talking about the food chemists in general throughout the country?

A. I think the food chemists in general throughout the country, those who have anything to do with the enforcement of pure food laws, make that distinction, with the possible exception of refiners' syrup which I think ought to be called refiners' molasses rather than refiners' syrup, because it is not a true syrup.

Q. Now, did you mean to say that acids were not used in the manufacture of syrups?

A. Not in the manufacture of syrups such as I have defined.

Q. Don't you use acid in the manufacture of cane syrup?

117 A. Not cane syrup of the kind I have defined.

Q. Well, any?

A. Why, it might be used, but it should not be used in my opinion.

Q. Do you find any syrups in which in the manufacture of which acids are used?

A. Are used?

Q. I say cane syrups, in the manufacture of which acids are used?

A. Perhaps there are some, but I don't think that they should be—that the use of acids should be prohibited.

Q. I am not asking for your opinion, but I am asking you for a fact.

A. I think those are adulterated syrups.

Q. Well, isn't it a fact that by a decision of the Board of Food and Drug Inspection of the agricultural department there is a specific label required on certain syrups because of the use of acids in them?

A. Not in syrups, but in the case of molasses there is. In the case of the manufacture of molasses sulphur dioxide is used; not in the manufacture of syrups.

Q. I am talking about the manufacture of cane syrups?

A. No sir, not to my knowledge. I think that statement refers to molasses.

Q. Now, I will ask you if there isn't a brand required by the government something like this: "Contains sulphur dioxide" on all molasses?

A. I don't think so, not the way you state it.

Q. Isn't that a requirement made by Approved Decision 76?

A. According to one decision by the Food and Drugs Inspection Board, the only one on that subject that I recall, the use of sulphur dioxide in all food products was to be prohibited after a certain date. Until that time had come it would be necessary to label the molasses and dried fruits and such food products that contained sulphur dioxide with the statement that sulphur dioxide was present. But I don't think it referred to syrups.

118 Q. Have you examined any molasses in Wisconsin recently to ascertain whether acids had been used in it or not?

A. Some samples have been analyzed in my laboratory.

Q. Well, did you yourself examine to find whether there were any chemicals in it?

A. Not I personally.

Q. You know nothing about it then?

A. I haven't personally examined any molasses for some time.

Mr. OLIN: Well, if it was done under your supervision I suppose you can state it.

Q. You understand that you find in molasses as ordinarily put on the market this sulphur dioxide?

A. Yes sir, in molasses as at present put on the market, generally, at least, it contains sulphur dioxide.

Q. And that is added in the process of manufacture?

A. Yes sir, so as to aid in the separation of the sugars, to remove certain impurities; also, perhaps, on account of a bleaching effect, altho that is denied by the manufacturers of molasses.

Mr. FAIRCHILD: Well, in this Decision 76—

Mr. OLIN: What is it headed?

Mr. FAIRCHILD: It is on page 8: "The following analyses showed the amount of sulphur dioxide usually found in molasses in the ordinary variations to which it is subject", then it goes on and names Orange Molasses, B. & O. brand, New Orleans Molasses, Porto Rican, Magnolia brand, Rockwood Molasses.

Mr. OLIN: What is the point?

Mr. FAIRCHILD: No point; I wanted to show that he would find these acids in molasses as it is put on the market.

Mr. OLIN: Is that in conflict with what he has stated. I 119 don't understand that it is.

Q. You stated what was contained in the reports of the different food departments of the states in regard to recognition of the name glucose. Did you state that you found in the reports of the different states that the health departments of those states recognized this article under the name of glucose?

A. No, I didn't say that.

Mr. OLIN: I don't think you state it quite correctly according to the testimony. It was that the state food chemists in reporting upon glucose as an adulterant always used the term glucose. Not the state departments, but the state food chemists.

Q. Well, these reports were made, were they, to the food departments of the states?

A. To the boards of health, or to the dairy and food commissioners, depending upon who was intrusted with the enforcement of the laws.

Q. Well, did you mean to say that the food departments of different states recognized this article exclusively as glucose?

A. I didn't say that.

Q. You didn't mean to say that?

A. No, my statement was that when the food chemists found glucose as an adulterant in any food product it was the universal or almost universal custom in this country to report such adulteration as glucose.

Q. Well, do you know the attitude of the health departments of the different states on that subject?

A. I do not. I have no personal knowledge.

Q. You don't know whether they recognize this article as properly called corn syrup as well as glucose, do you?

A. I have a general knowledge, but not a personal knowledge, 120 edge, and not a very accurate knowledge on the subject.

Q. You haven't any personal knowledge except as you read their reports and talked with them personally?

A. No.

Q. Have you ever noticed their reports, the reports of the boards of health of different states?

A. I don't think I ever noticed reports on the labeling of glucose mixtures. If I did I never paid much attention to that.

Q. You haven't in any way put yourself in touch with the food departments of any of the other states on the subject of the nomenclature of this article?

A. Why, not very closely.

Q. Well, closely, have you at all?

A. No, I never have directly.

Q. In other words, do you know whether in other states this article is recognized by the food departments as properly named corn syrup?

A. From my information I know that that term is permitted by the law of the state of Michigan, and I believe it is permitted by what is some times called rulings in some of the other states.

Q. Well, is it the law of Illinois?

A. I couldn't tell you.

Q. Do you know that in other states it is the rule that it may be called corn syrup?

Objected to as immaterial.

Objection overruled.

A. I have a general recollection, not a very specific one, I rather think Iowa did, and I believe the former commissioner of Missouri, who is now out of office, ruled that for the present the name corn syrup might be permitted. That is, he made that statement for the present.

Q. How as to Mr. Ladd of North Dakota? He is the president of your association.

A. I don't know what his present attitude is.

Q. Well, he is the president, is he not, of your association?

A. No sir.

Q. Well, he was the president?

A. Last year.

Q. Now, do you know whether in the other states of the Union to a very, very large extent this same syrup or the same article is sold extensively under the name of corn syrup?

A. I believe it is. It is sold extensively in Wisconsin under the name of corn syrup.

Q. I say extensively through most of the states of the Union. Don't confine it to Wisconsin.

A. I presume so. I have no knowledge on the subject.

Q. Well, isn't that your information? You must have attempted to inform yourself on that subject, haven't you?

A. Why, not on that subject. I would take it for granted that they would be sold.

Q. Now, isn't it a fact, that in most of the encyclopedias and in most of the dictionaries this article is termed a syrup?

A. In most of them I believe it is termed starch-syrup.

Q. Well, it is called a syrup, tho', isn't it?

A. Not by the unmodified term syrup. It is known as starch-syrup, altho' perhaps they might speak of it as a syrupy preparation.

Q. Well, a starch-syrup would be a more proper designation of it, wouldn't it, than glucose, because it is the direct product of starch?

A. If glucose hadn't been so universally used as the name for the product in this country, I should say yes; but in this country the term glucose has become so familiar that I believe it is a perfectly proper designation. It might perhaps also be called starch-syrup, since it is composed of from one-third to one-half of mucilage. Perhaps syrup and mucilage would be a better name.

Q. Now, since you have referred to mucilage, I would like to know from you, doctor, if in the manufacture of corn into sugar the mucilage wouldn't disappear entirely?

A. Not in the manufacture of glucose. But in the manufacture of starch sugar, the dextrin disappears largely, yes sir.

(Question read.)

A. You refer there I suppose to the manufacture of corn starch into starch sugar?

Q. I refer to the manufacture of corn into sugar.

A. The beginning is corn and the end is sugar, the end of the process is sugar.

Q. Now, I ask you if this, what you call mucilage, doesn't disappear entirely and is converted into sugar?

A. Yes sir—not entirely, but largely, and it can be entirely converted. Commercially it isn't converted entirely as a rule.

Q. Is mucilage of dextrin known commercially?

A. The mucilage of dextrin?

Q. Yes.

A. It is—that is, not by that name, but the ordinary mucilage—

Q. That's it, you give that name to it in order to make it offensive.

A. No sir, because it is recognized in the National Formulary, which is one of our standards for drugs in this country?

Q. Have you the work here?

A. No sir. I can get it for you though.

Q. That denominates it mucilage?

A. Mucilage of dextrin, yes sir.

Q. Is that an article that is put on the market as such under that name?

A. Not as a food product, no sir.

123 Q. Is it a commercial commodity at all?

A. Well, it would be—not under that name. It is, but not under that name.

Q. What name is it?

A. Mucilage. Ordinary mucilage is this mucilage of dextrin.

Q. Oh, the ordinary mucilage is mucilage of dextrin?

A. Yes sir.

Q. That is what you say may be converted entirely into—sugar?

A. Yes sir, by the application of acids.

Q. Well, you don't mean to say that that is a harmful product at all, do you, in glucose?

A. Why, no, I think it is digestible, I think it is a wholesome food product.

Q. You knew, did you not, doctor, that the three secretaries, of agriculture and treasury and commerce, had directly decided that corn syrup was a proper designation of this very article?

Objected to as immaterial.

Objection overruled.

A. I have seen a circular to that effect.

Q. I present to you, doctor, a certified copy, marked Exhibit 20 and ask you if this is the Decision that you refer to, Decision 87?

A. Yes sir.

Mr. FAIRCHILD: I offer this in evidence in connection with his examination.

Objected to as immaterial.

COURT: It may be received.

Mr. FAIRCHILD: The last part of it. 'This is dated and reads as follows: "Washington, D. C. February 13, 1908. We have each given careful consideration to the labeling under the pure food law of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup 124 as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if labeled "Corn Syrup with Cane Flavor." Signed "George B. Cortleyou, Secretary of the Treasurer, James Wilson, Secretary of Agriculture, Oscar H. Strauss, Secretary of Commerce and Labor."

Q. Now, the three secretaries in pronouncing this decision must have used in reaching it a different standard from the one found in Circular No. 19.

Objected to as argumentative.

Q. And I will add on there: and returned to the standards found in Circulars 10, 13 and 17.

Mr. OLIN: Objected to because it don't pretend to be a reversal of any existing standard or the establishment of a standard or the interference with any definition and therefore adopted by these departments.

Objection overruled.

A. Their decision, as I view it, uses practically the same definitions that were in the previous standards.

Q. In Circulars 10 and 13?

A. And 17.

Q. Well, this federal statute, I haven't it here at present, did that statute give any particular effect to the standards promulgated by the secretary of agriculture, any particular legal effect?

A. You mean the national food and drug act?

Q. Yes.

A. No sir.

Q. No, I don't mean the national food and drug act. I mean the act under which the standards were permitted to be made and promulgated. That was an appropriation act, as I understand it. Did that act give any particular legal effect to these standards, or
125 were they merely suggestive?

A. Why, it seems to me that's a question of law. I can give you the wording of the act.

Q. Well, that is what I am getting at. I didn't have the statute before me.

Mr. OLIN: As referring to the first one, and it is the same right down to the one including 1905, this first one that I have was approved June 3, 1898, and on page 13 of the pamphlet I have and under the general heading "General Expenses" "Bureau of Chemistry," "Chemical Apparatus" etc., it goes on and makes an appropriation for various things named, and then on page 13 after a semicolon is this language: "to enable the secretary of agriculture, in collaboration with the Association of Official Agricultural Chemists and such other experts as he may deem necessary to establish standards of purity for food products and to determine what are regarded as adulterations therein, for the guidance of the officials of the various states and the courts of justice." Now if you want to get the whole matter before the court, you might as well do it here, I will refer you to the pages where it has just the same language in the other act, right along down through, if you care to. The next act was approved March 3, 1903, and on page 13 of the pamphlet I have, under the same general head of "Bureau of Chemistry" is identically the same language. Then in the act approved April 23, 1904, and on page 13 of the pamphlet I have, purporting to contain that law, under the same general head of "Bureau of Chemistry" is found precisely the same provision. The next act, approved March 3, 1905, and on page 15 of the pamphlet I have, is found under the same general head "Bureau of Chemistry" almost the same provision. I will read it, it is a little different. It reads as follows: "To enable the secretary of agriculture in collaboration with the Association of Official Agricultural Chemists and such other experts as he may deem necessary, to establish standards of
126 purity for food products and determine what are regarded as adulterations therein." It leaves out the advice as to guidance, etc. of courts. Now the next act, approved June 30, 1906, which was four days after the standards were promulgated in Circular No. 19, and on page 19 of that act, there is this language: "To enable the secretary of agriculture in collaboration with the Association of Official Agricultural Chemists, and such other experts as he may deem necessary, to ascertain the purity of food products and determine what are regarded as adulterations therein." Omitting the provision as to standards, you will see. In the last act, I have, approved March 4, 1907, page 18 where it would come if incorporated according to all the other acts, that clause is entirely omitted. That is the history of it as I have got it.

Q. You stated that no longer was there any authority in the secretary of agriculture to establish standards?

A. Yes sir.

Q. Do you know that those standards now are regarded as of any force except merely suggestive, as the opinion of any chemist would be suggestive?

Mr. OLIN: Isn't that a legal question? And I suppose you are limiting it under the United States courts.

Mr. FAIRCHILD: Why, I don't mean to limit it to the United States courts. Read the question.

(Question read.)

Q. I would say, regarded by the department of agriculture?

Court: He may answer

A. Why, I have no positive knowledge. It is my impression that they are merely regarded as evidence in the enforcement of the national pure food law.

127 Q. As to the opinion of the gentleman who framed them.

A. Why yes, what force they would have, I don't know.

Q. Well, they are frequently, are they not, in the decisions of the department of agriculture disregarded now?

A. Why, I have seen them quoted in practically all the food decisions under the national law—not the decisions—I mean decisions of courts, I have seen them quoted. Now just what force they had in the trial I don't know, or in the presentation of the case.

Recess until 2 P. M.

2 P. M. Trial resumed.

Redirect examination by Mr. OLIN:

Q. Doctor, you were asked to state whether dextrin was a wholesome food product, and I think that you said that it was.

A. Yes sir.

Q. Is it by itself a palatable food product?

A. No sir.

Q. And is it, therefore eaten excepting in connection with some other element or part of food?

A. I don't think anybody would want to eat it unless it were mixed so as to make it palatable.

Q. What is the distinction, if any, between corn starch which is used for table use and from which this article glucose is made, and the starch used for laundry purposes?

A. Why there is no difference. The starch is purified to the same extent in all cases.

Q. I think you stated you had no recollection of seeing the article corn syrup on the market here in Wisconsin prior to the enactment of the law of 1905?

A. That was my statement.

128 Q. Before that the mixture was sold under the different names that you have already spoken of?

A. Those that came to my notice were, yes sir.

Q. I think you stated in one of the questions put by counsel that

since the law of 1905 was enacted this substance has been sold in Wisconsin as corn syrup?

A. In many instances.

Q. I was going to ask you whether your statement wasn't too broad. Since the statute of 1907 was enacted can you tell us whether this article has been sold exclusively under the name corn syrup in Wisconsin?

A. Since the fall of 1907 and especially since the early winter of 1907 most of it has been sold under the name of "glucose flavored with refiners' syrup."

Q. Complying with the statute?

A. Yes sir. In fact I remember only one brand that continued to be sold under the name of corn syrup.

Q. Is that the brand of this Corn Products Company?

A. Yes sir, the Karo brand.

Q. They have insisted on the right to sell the product under that name of corn syrup?

A. Evidently.

Q. And they have insisted on that right since this action or these cases were commenced?

A. Yes sir.

Q. Now you were asked, Dr. Fischer, about a publication of standards and definitions of food products by a committee it seems of which you were put down as one and Mr. Edward M. Eaton was chairman, promulgated or adopted apparently at the meeting at Portland, as I understood you to say.

A. I said it was not adopted.

Q. Do you know how that document that was shown you came to be headed in the way it is, printing your name and others there?

129 A. In a general way, yes.

Q. I wish you would explain to the court what you know about it.

Mr. FAIRCHILD: Are you going to put that in evidence?

Mr. OLIN: No I am not going to put it in evidence.

A. Dr. Eaton, who was chairman of the committee during the year preceding the Portland meeting never called the committee together, but a few days before the meeting, on our trip to Portland, he showed a few copies of these printed standards and definitions of food products, carrying our name upon it in this form which was presented to us. That was the first knowledge I had that any of our committee had framed any such standards.

Q. And it was printed and everything?

A. It was printed in the form in which you see it here in Exhibit 17.

Q. Now, were those distributed among the members of your gathering there at Portland?

A. Why, a few copies were distributed.

Q. Do you know what action the members took about them?

A. As before stated, Dr. Winton and I were the only other mem-

bers of the committee present at Portland, and when Dr. Eaton called the committee together on the very last day of our meeting with a report that had been drawn up recommending these standards, Dr. Winton and I voted against adopting them as a report of our committee.

Q. Now what was done, if anything, or action taken with reference to any of these copies that had been gotten out in circulation there among the members?

A. Because Dr. Winton and I protested against having such standards promulgated with our names on, when we had nothing to do with the drawing up of these standards, a resolution was passed that all the printed copies of these standards be handed over to the executive committee so that they should not be distributed.

130 Q. Who was this publisher, Meyers?

A. H. B. Meyers, who, I understand, printed these copies for a number of years had a contract for printing the proceedings of our conventions.

Q. And did you ever get the proceedings of this meeting?

A. No sir, we didn't.

Q. Why not?

A. Because Mr. Meyers refused to give them up to the executive committee and he published them in his own paper.

Q. Now, were those standards as proposed such as you approved of?

A. No sir. I certainly would not approve of a very large number of the standards in this Exhibit 17?

Q. Why not?

A. Because I think they are faulty standards. Among other things, they allow the use of a large number of preservatives, allow the use of coloring matter almost indiscriminately, and there are so many things in there, so many standards in there which I consider absolutely false that I certainly wouldn't approve of them.

Q. Now, this association that met at that time at Portland bore what name, do you remember?

A. The National Association of State Dairy and Food Departments.

Q. Has that been in any way changed since?

A. Yes, the name was changed at the Portland meeting and then changed again at the Hartford meeting.

Q. What is the name as changed at the Hartford meeting and what was the year?

A. The Hartford meeting, in 1906 I believe, changed the name of the association to its present name, the Association of State and National Food and Dairy Departments.

Q. And what is it that entitles one to membership in that association?

A. This association consists of the food control officials
131 of the United States.

Q. Does it include also the chemists to the departments, in the different food and dairy departments in the different states?

A. It does, commissioners and chemists.

Q. Of the whole country?

A. Yes sir.

Q. Including the national, as you said, and the different states?

A. Yes sir.

Q. Now has that organization had in existence a committee on standards for some time?

A. Yes, for a long time, but they never adopted any standards until the Jamestown meeting.

Q. The Jamestown meeting was in 1907?

A. Yes sir.

Q. Now, prior to that meeting you had adopted the standards or recommended the standards to the secretary of agriculture as you already have stated, in 1906?

A. What do you mean by "you"?

A. I mean the committee.

A. Not the committee of our association, no sir.

Q. No, but that committee?

A. The committee of the Association in the Official Agricultural Chemists and I collaborated with them.

Q. I accept the correction. Now, I wish you would state how that organization was made up?

A. The Association of Official Agricultural Chemists consists of the chemists of the United States department of agriculture and of the various state agricultural experiment stations, as well as the chemists in charge of the chemical work for the enforcement of state food laws.

Q. Now had that organization a committee on food standards?

A. Yes sir, it had one for quite a long time.

132 Q. Who were the members composing that committee prior to and who had acted in connection with the standards reported at the Jamestown meeting, if you can state? Do you remember the names?

A. The standards recommended and adopted at the Jamestown meeting were made up by a joint standards committee of our association.

Q. When you say "our" you mean what?

A. The Association of State and National Food and Dairy Departments and of the Association of Official Agricultural Chemists acted jointly as a commission.

Q. Can you state how many different persons acted on each of those committees?

A. There were five on each of the committees, but two were members of both committees, so we were in all eight members.

Q. Now, you were a member, were you not, of one of those committees at least?

A. Yes sir.

Q. Were you on both?

A. No sir.

Q. Which one were you a member of?

A. I was chairman of the committee on standards of the Association of State and National Food and Dairy Departments.

Q. And you are still?

A. Yes sir.

Q. You have held that position how long?

A. Since the Jamestown meeting in 1906.

Q. Now, did that joint committee from these two different organizations make a report on food standards to the meeting held at Jamestown of the association of food and dairy departments in 1907?

A. The joint committee adopted certain standards, but these standards were presented to the Association of State and National Food and Dairy Departments by its committee.

133 Q. That is, the standards then, if I understand you, were first adopted by the joint committee, but were presented by the committee of this association you named?

A. Yes sir, and the other committee presented the same standards to their association and they were adopted in the fall of that year, as I understand it.

Q. To refresh your recollection, I hand you, Dr. Fischer, a book entitled Association of State and National Food and Dairy Departments, Jamestown Convention, 1907. If you will just glance at a few pages there and state whether the adoption of these standards that you have spoken of was preceded by a paper by Dr. Wagner of the Corn Products Company and by a discussion? Perhaps you recollect that without the book?

A. Yes sir.

Q. It was?

A. It was.

Q. Now, at the same session after that discussion were these food standards adopted?

A. Yes sir, subsequently.

Q. Do you remember by what vote?

A. By a unanimous vote. No objections raised.

Q. Was that meeting, or was it not, largely attended?

A. It was.

Q. Did those standards incorporate in them standards that had been adopted by the secretary of agriculture or promulgated in Circular No. 19?

A. Yes sir. They contained those standards in toto.

Q. You remember there was some testimony called attention to here whereby the power or authority of the secretary of agriculture to employ experts, etc. to investigate and promulgate food standards was withdrawn. You remember that legislation, do you?

A. Yes sir.

134 Q. And you remember the appropriation was withdrawn?

A. Yes sir.

Q. Had that committee made up of the chemists of the Association of Official Agricultural Chemists and yourself as representing the Interstate Food Commission—were you investigating other foods or drinks at this time when the change in the law was made?

A. Yes sir.

Q. Which one particularly?

A. You mean just previous to the adoption of the standards?

A. No, afterwards, and just previous to the change in the law whereby the appropriation was withheld. Did you have a meeting at Louisville?

A. Yes, we had a meeting subsequently. We were then acting as a commission under the direction of the secretary of agriculture, but the right to establish standards had been taken from him, but an appropriation was granted to him for the purpose of investigating the purity of food products and determining what shall be considered adulterations therein.

Q. And you were still acting in that capacity?

A. We were, and he appointed the committees of both associations as a commission to look into the question of the purity of whiskies and other distilled liquors and also any other questions that might come up.

Q. And you had held one meeting, hadn't you on the matter?

A. We held two meetings previous to the Jamestown meeting, one at Louisville and other points in Kentucky, I will call that just one meeting, and another one just previous and partly in conjunction with the meeting at Jamestown.

Q. And had you set a time for a further meeting of the committees?

A. The secretary of agriculture had notified us of another meeting to be held in St. Louis on a certain day in May, 1907.

135 Q. Now, before that time arrived had the law been changed withholding an appropriation?

A. Yes sir.

Q. So you never held that meeting, did you?

A. No, we never did.

Q. Now, going on with this other matter, following up from the Jamestown meeting, you had the next meeting of this Association of State and National Dairy and Food Departments at what place?

A. After this?

A. Yes, after this Jamestown meeting?

A. The next meeting was held at Mackinac Island.

Q. Do you remember what time of this year?

A. August 4, 1908, it commenced I believe.

Q. Now prior to that meeting and between the Jamestown meeting and that meeting had there been meetings of these two committees of these two associations that you have designated?

A. Yes sir, two meetings.

Q. Was there a report made to this meeting of this association at Mackinac?

A. Yes sir.

Q. With reference to food standards?

A. Yes sir.

Q. Had this circular or this rule or department's decision made, that has been introduced in evidence, here by the three secretaries before you held these meetings of your joint committee, either one or both of them?

A. Can you give me the date of that circular?

Q. The date of the circular is February 13, 1908.

A. We had a meeting in Chicago about that time, I don't remember whether it was just previous or a little later, but we had a meeting at Mackinac Island before the meeting of our association, which was held in August several months later.

136 Q. At that meeting was this circular considered?

A. It was.

Mr. FAIRCHILD: What circular?

Mr. OLIN: This circular that has been introduced in evidence by you, by the three secretaries.

Q. You say that matter was considered by the joint committee?

A. Yes sir.

Q. Was this matter considered of the proper designation of this article that we are discussing here, glucose?

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial, as occurring after this transaction, and it can't have any bearing upon it.

Objection overruled. Exception by defendant.

A. It was.

Q. And what was the conclusion reached on that question, as to whether the committee would adhere to the standard as fixed in June, 1906, or recede from it?

Mr. FAIRCHILD: I make the same objection to this question, that it is incompetent and immaterial, something occurring after the transaction.

Objection overruled.

Exception by defendant.

A. We decided to adhere to the standards on that subject at least—on glucose, in Circular No. 19.

Q. Did this joint committee agree upon a report made of standards made for food products?

A. Yes sir.

Q. What was that agreement, unanimous?

A. Yes sir.

Q. Was the report which that joint committee recommended later reported to this association that met at Mackinac.

137 A. It was.

Q. By whom?

A. By myself as chairman.

Q. You were chairman of what committee?

A. Of the committee on food standards of the Association of State and National Food and Dairy Departments.

Q. And who at that time was acting with you?

A. As a joint committee?

Q. Yes—no, of this single committee first.

A. Dr. Seovell, Director of the Kentucky Agricultural Experiment Station and in charge of the enforcement of the Kentucky pure food law, Dr. Jenkins, Director of the Connecticut Agricultural Experi-

ment Station; Mr. Barnard, the Food and Drug Commissioner of Indiana and also a chemist, and I might say the other gentlemen are chemists; and Professor Fullmer, State Chemist of the state of Washington.

Q. That committee reported the standards that had been agreed upon by the joint committee to this association?

A. Yes sir.

Q. Now, did the association act on it there at Mackinac.

A. They did.

Q. What did they do with that report?

A. They adopted the report unanimously.

Q. And who was president of the meeting?

A. Dr. Ladd.

Q. Did he make any dissent or criticism in any way of this report, how he felt toward it?

A. No, he felt favorable towards those standards, and there was no dissent from the report by any of the commissioners or chemists.

Q. How representative a body was this that was held at Mackinac?

A. It consisted of the food commissioners or chemists of most of the states——

138 Q. You have stated what it consisted of, but were they there in attendance?

A. Yes sir.

Q. The membership was well represented there?

A. If my recollection serves me right, thirty-six states were represented.

Q. Going back just a moment, your association reports its proceedings, does it not?

A. Yes sir.

Q. Each year?

A. Yes sir.

Q. Have those for 1908 been put in book form yet or printed?

A. No sir.

Q. Those for 1907 at Jamestown have been, have they not?

A. Yes sir.

Q. And is that report on food standards and the standards themselves found in the report of the association between pages 347 and page 377 inclusive?

A. Yes sir.

Q. Now did this Association of State and National Food and Dairy Departments at its meeting at Mackinac appoint a committee on uniform legislation or some uniform law as to food products?

A. Yes sir, uniform state food law.

Q. Made up of how many persons?

A. Five I believe.

Q. Do you remember who they are?

A. Commissioner Faust of Pennsylvania as chairman; Professor Ladd, North Dakota; Dr. Scovell of Kentucky; Dr. Bigelow of the United States Department of Agriculture, and I think Commissioner Bird of Michigan.

130 Q. Do you know whether that committee has prepared a proposed law and sent it out to the different state departments?

A. Yes sir.

Q. Does that proposed law incorporate in it the food standards that were adopted at this last meeting?

MR. FAIRCHILD: I object to that as incompetent, irrelevant and the paper itself is the best evidence.

COURT: Sustained upon the latter ground.

Q. Do you know how the standards adopted at the Mackinac meeting differ, if at all, from the standards that were adopted at the meeting at Jamestown with regard to syrup?

A. With regard to syrups and glucose products there were no changes made. There were practically no changes made, except in the case of distilled spirits.

Q. But as to glucose and the glucose mixtures and the different kinds of syrups and molasses, do I understand you that there has been no change?

A. There has been no change.

Q. From the time you adopted the standards or recommended the standards to the department at Washington?

A. No changes have been made since.

Q. Doctor, have you investigated the dictionary definitions of these terms glucose and syrup?

A. Yes sir.

Q. Have you got with you the definitions of those two terms as contained for example in the Century Dictionary, the Standard Dictionary and Webster's International Dictionary?

MR. OLIN: I thought it might do no harm to read them into the record, getting it before the court.

Q. Take, for example, glucose and give us the definition of the Century dictionary first.

140 A. According to the Century Dictionary glucose is defined as follows:

"1. The name of a group of sugars having the formula $C_6H_{12}O_6$ ". I did not put the rest down; it went somewhat into the chemistry of that group. "Secondly. In commerce the sugar-syrup obtained by the conversion of starch into sugar by sulphuric acid".

Q. Take the Standard Dictionary and give the definition of glucose, keeping the terms separate.

A. The Standard Dictionary gives the following definition: "A sugar found largely in the vegetable kingdom and in honey, also in the animal organism, as in the blood, liver, urine. It is the principal member of the group to which it gives its name, and is much less sweet than cane-sugar. It is made commercially by treating starch with diluted sulphuric acid, and the resulting solid product is called grape-sugar and the syrup glucose".

Q. Now, what is Webster's International Dictionary, how does that define glucose?

A. Webster's International Dictionary, after giving the scientific definition for the individual sugar glucose and the class of sugars called glucose, gives the following: "The trade name of a syrup obtained as an uncrystal-izable residue in the manufacture of glucose proper, and containing in addition to some dextrose or glucose, also maltose, dextrin, etc. It is used as a cheap adulterant of syrups, beers, etc". This is Webster's International Dictionary of 1906.

Q. Now, you may take up the term syrup and state how that is defined by the Century Dictionary.

A. Syrup is defined in the Century Dictionary: "1. In medicine, a solution of sugar in water, made according to an official formula, whether simple, flavored or medicated with some special therapeutic or compound. 2. The uncrystal-izable fluid finally separated from crystal-ized sugar in the refining process, either by the draining of sugar in loaves or by being forcibly ejected by the centrifugal
141 apparatus in prepared moist sugar. This is the ordinary or "golden syrup" of grocers, but in the sugar manufacture the term syrup is applied to all strong saccharine solutions which contain sugar in a condition capable of being crystal-ized out, the ultimate uncrystallizable fluid being distinguished as molasses or treacle."

Q. Take the Standard Dictionary definition.

A. According to the Standard definition syrup is defined as follows: "A thick, sweet liquid".

Q. This is the first broad statement, is it?

A. Yes sir.

Q. Then what follows?

A. "Specifically a saturated solution of sugar in water; often combined with some medicinal substance or flavored, as with the juice of fruits, for use in confections, cookery, or the preparation of beverages. 2. The uncrystallizable portion of any saccharine substance, as sugar-cane juice, separated from the crystallizable sugar during the process of sugar-boiling, or that which drains from sugar in the process of separating or refining; called molasses by planters. 3. The condensed cane-juice before separation of the crystallizable sugar; so called specifically by planters".

Q. Take Webster's International Dictionary and state the definition?

A. According to Webster's International Dictionary of 1906 syrup is defined: "1. A thick and viscid liquid made from the juice of fruits, herbs, etc. boiled with sugar. 2. A thick and viscid saccharine solution of superior quality (as sugar-house syrup or molasses, maple syrup). Specifically, in pharmacy, and often in cookery, a saturated solution of sugar and water (simple syrup), or such a solution flavored or medicated".

Q. You were asked by counsel if the products were made from the grain rye whether you would consider it proper to call it rye syrup. Would such a syrup have any of the characteristic flavor of the grain rye?

142 A. No sir.

Q. I don't know what the fact is, but I believe we have a whiskey that is called Old Rye, or something like that. Does that have any of the flavor or quality of the grain or supposed to have?

A. It has if made from rye. But it would not have if it were made from rye starch.

Q. But made from the grain you say it has?

A. Yes sir.

Q. But if made from the starch of the rye, it wouldn't have?

A. No sir.

Q. Do you think that it is an honest designation to call it Old Rye or Rye Whiskey?

A. If it is that.

Q. When you answered counsel's question that it would be easy for one to determine or detect any deleterious substance that might be in this product, were you referring to the consumer or to the chemist?

A. To the chemist, not to the consumer.

Q. Is there any difference in the use of the acids, if any, in case of molasses and in the manufacture of glucose?

A. A different acid is used.

Q. Well, I don't mean that, but is there a difference in the use?

A. Yes.

Q. And in the effect? What is it?

A. In the use of sulphur dioxide, or sulphuric acid as its aqueous solution may perhaps be called, in the manufacture of molasses, the object is primarily to clarify the juice to remove certain albumenoid constituents, so as to make the crystal-ization of the sugar easier. The more impurities there are left in the juice the more difficult it is to crystal-ize out the sugar.

Q. There is no chemical change there, is there?

143 A. No, the object is to reduce all chemical changes to a minimum, to use only enough sulphur to produce this clarification without producing any chemical change, because if there is a chemical change it means a reduction in the amount of sugar they can get. Whereas in the case of glucose a stronger acid is used and it is absolutely necessary to have a deep-seated chemical change take place to produce glucose.

Q. Do you know whether Mr. Ladd of North Dakota was at the Jamestown meeting?

A. He presided at the Jamestown meeting.

Q. Something was said about making sugar from sawdust. I believe you said that it could be. If you were to chop up a maple tree and use the wood from which to make a syrup, would you call it maple syrup?

A. No sir?

Q. It would be syrup made from the tree of the maple, wouldn't it?

A. Certainly. Indirectly in the same way as glucose is made from corn.

Q. This ruling of the three commissioners that has been referred to, do you understand whether there has been a ruling of the department as to the Wisconsin statute as to branding, whether they could brand this article as the Wisconsin statute requires and still be entirely with the United States law?

A. Yes sir.

Q. What has been the ruling, as you understand, of the department in that respect? I will withdraw the question.

Q. This part of the product which you spoke of, mucilage of dextrin. That, as I understand, when the product is sold in this liquid form remains in it as a part of it?

A. Yes sir.

Q. And it's only when you carry the process farther and get the sugar that you get this mucilage of dextrin out of it?

144 A. Yes sir. It is essential to commercial glucose.

Q. I suppose you can make caramel out of this product?

A. Not as easily as you can from cane-sugar.

Recross-examination by Mr. FAIRCHILD:

Q. Doctor, I am not certain I asked you this morning whether glucose has ever been or corn syrup has ever been produced from the stalk, commercially, for commercial use?

A. As I understand it, it was produced in considerable quantities during the revolutionary war. Whether it was sold commercially I don't know.

Q. There never has been any manufactory established for its production that you know of?

A. No sir.

Q. Well, whether it can be produced for commercial use is at best now merely a problem, isn't it, or a conjecture?

A. Yes. Especially in competition with glucose as corn syrup.

Mr. FAIRCHILD: Now, doctor, you don't have to make any argument at all. I ask that it be stricken out. I didn't ask him anything about competition at all.

Motion granted.

(Question read).

A. It seems to me whether it can — produced commercially or not depends upon competition. I may be mistaken, but that would be the way I would interpret it.

Q. I didn't ask you whether it could be profitably done.

A. I say it is not being done at the present time.

Q. I am saying, can it be produced, whether it *can* be produced for commercial use is a problem and a mere conjecture.

A. That would depend on what utilization could be made of the other material, and it would also depend on the competition it would have to meet.

Q. Well, that is merely an argument in favor of it, but I
145 am saying it hasn't been yet demonstrated that it can be done.

A. According to the report of the United States department of agriculture it can be successfully done, and the manufacture

of paper pulp from corn stalks is a successful manufacture, and its competition with the wood pulp would depend upon the sale of the corn syrup that is made as a byproduct.

Q. But it hasn't been accomplished as yet?

A. No, it hasn't.

Q. And whether it can be is a problem yet unsolved?

A. Well, it hasn't been done yet. I stated the report of the United States Department of agriculture on that investigation.

Q. Are there any glucose factories in Wisconsin?

A. I don't know of any.

Q. No glucose is produced then in Wisconsin, as I understand you?

A. I don't know of any that is produced.

Q. Well, that is true as long as you have been connected, is it not, with the department of the food and dairy commission?

A. As far as I know there never has been a glucose factory in Wisconsin, but I wouldn't want to say that authoritatively.

Q. Well, you would know whether there has been any in the last six or seven years?

A. Probably. Not with absolute certainty, no. There might be factories, but I am under the impression that there are none.

Q. Did you have to do with the preparation of the statute, chapter 152 of the laws of 1905 or your department?

A. Is that the law relating to the sale of glucose mixtures?

Q. Yes.

A. Yes sir, our department did.

Redirect examination by Mr. OLIN:

Q. That chapter 152 of the laws of 1905, the Michigan statute. Did you have anything to do with framing that yourself?

A. Yes sir, Mr. Emery and I had something to do with the framing of it.

Q. And you had more to do, didn't you, with the law of 1907?

A. Yes sir. As much at least.

Mr. OLIN: We offer in evidence Exhibits number 15 and 16. They are a part of the products purchased in this case.

Dr. FISCHER: If I may make a statement, your honor, I would like to say that I added to all of these samples, except to the glycerin and the phosphoric acid, a small amount of preservative, so that they would not spoil in case the sample would have to be kept.

Q. Does that change their appearance to the eye at all?

A. No, nor to the taste.

Q. It was done simply to keep the color?

A. So they wouldn't ferment.

Recross-examination by Mr. FAIRCHILD:

Q. What is this preservative?

A. Benzoate of soda.

Q. How much did you put in?

A. The quantity varies a little bit in the several samples. It is about three-tenths of one per cent.

Mr. OLIN: I next offer in evidence Exhibit Number 1, which is the glucose mixture, for the purpose of showing its general consistency and color.

We next offer in evidence Exhibit number 1b, which is the sample which was taken from a barrel at Teckemeyers, and also the sample marked Exhibit 1a, which was purchased from Sprague, Warner & Co.

Dr. FISCHER: That was left at the office by some manufacturer, I don't know who, but I know it is glucose.

Mr. OLIN: I will separate that and offer in evidence the first here Exhibit 1b, with the statement made and the explanation that it has colored some since.

147 Now, I will offer separately the other, which was testified to, number 1a, which I think shows the condition of things better, because it is not discolored at all. It is the plain glucose, only it differs from 1 in that it is more condensed.

We also offer in evidence Exhibit 1c, which is testified to be the form of purified starch-sugar, showing another condition of the product, showing one of the constituents of the product.

We next offer in evidence Exhibit number 1d, which is a sample of maltose, another constituent of the product of glucose.

We next offer in evidence Exhibit number 14, which is the exhibit of maple syrup, showing the color of the maple syrup and its consistency.

We next offer in evidence Exhibits 4 and 5, which are a mixture of eighty-five per cent of glucose No. 1 and fifteen per cent of the refiners' syrup No. 2 in one case and No. 3 in the other.

148 FREDERICK DOWNING, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Downing, where do you now reside?

A. In Madison, Wisconsin.

Q. You have lived here how long?

A. One year.

Q. What is your business now?

A. I am working in the laboratory of the Wisconsin dairy and food commission.

Q. Have been for how long?

A. For about one year.

Q. Did you at one time work for the Corn Products Company?

A. I did.

Q. For how long a time?

A. For about three months.

Q. On what place?

A. I was at their plant in Chicago for a trifle over a week; I think it was about ten days.

Q. What were you doing there at Chicago, familiarizing yourself?

A. Familiarizing myself with their methods, with the intention of being sent out to Granite City.

Q. In Iowa?

A. Granite City, Illinois.

Q. And then later did you go to Granite City, Illinois?

A. I did.

Q. And worked there in what capacity?

A. As chemist.

Q. In the laboratory?

A. Yes sir.

Q. For how long?

A. A month.

149 Q. Then you worked where?

A. Then I was transferred to Pekin, Illinois.

Q. And worked there how long?

A. Somewhere in the neighborhood of six weeks.

Q. And did they at either place make what they send out now under the name of corn syrup?

A. They did at Granite City.

Q. But at the other place?

A. Not to my knowledge.

Q. Well, now, in the laboratory did you have samples sent to you there for the purpose of being analyzed?

A. Of this Karo Corn Syrup?

Q. Well, samples of the products that they were making?

A. Yes.

Q. Mixed or unmixed or both?

A. Well, we had samples of what they called glucose and samples of what we call in the laboratory mixed goods.

Q. Now, was there any designation put upon these samples that you called glucose there as they came to you?

A. Yes, the word glucose was written on the sample on a piece of paper and handed to us in the laboratory in that form.

Q. And the other, where the glucose was mixed with something else, was that marked in any particular way as it came to your laboratory?

A. I don't recall definitely what was placed on these samples. It may have been "Matched goods" or it may have been "Mixed goods", but I am not sure as to that.

Q. Well, do you think it was corn syrup?

A. No, it was not that.

Q. Now, was it the course of business there for the chemist to make a daily report to the superintendent of the particular factory?

A. Yes sir.

150 Q. Was that in a printed form filled up from day to day?

A. Printed blanks were gotten out and these were filled in by the chemists.

Q. Now, have you got with you a copy of one of those so as to be able to state how they designated this product they were making?

A. When I was at Chicago?

Mr. FAIRCHILD: When was that?

Q. 1907, wasn't it?

A. Yes.

Q. It was about a year ago, wasn't it?

A. I went to work for them in the fall, September 1907, and remained with them until I came here, the latter part of December.

Q. Of this year?

A. Of last year, 1907.

Q. So this was in 1907 sometime in September you think, along in there, or between that, along in September?

A. October was when I was at Granite City.

Q. Now, you were going to state that while at Chicago you did what with reference to this daily report?

A. Why, being sent out to Granite City, I was to be sent out as the first assistant in the laboratory, and in familiarizing myself with the work which I was to do there I copied their methods and I also took a copy of their daily laboratory report.

Q. Have you got that with you?

A. I have.

Q. Then subsequently did you notice whether such a report as you copied was in use at this place?

A. Yes, these same blanks I believe are in all the laboratories where I worked.

Q. Now, just state in your own way what this report contained as to the article, by the chemist?

Mr. FAIRCHILD: What name was given to it, that is what you are after?

A. This report was called the Daily Laboratory Report.

Q. Now, in that report how did it designate the article that was being manufactured?

A. Well, of course a great number of substances are dealt with in this report. With regard to the case here, they spoke of the—

Q. Just read right from your book there.

A. Well, they spoke of the "acidity of glucose"—

Mr. FAIRCHILD: I thought you were simply going to ask him what was the name applied to the article itself that he was to analyze.

Mr. OLIN: No, this wasn't what he analyzed, but this was the daily report of the head chemist there, as I understand, he reports to the superintendent every day, and it contains a blank to be filled in with various things, the products that are being made there, how he designated it. We want to show that right in the factory there the article went under the name of glucose.

Mr. FAIRCHILD: Well, isn't that your whole object?

Mr. OLIN: Well, that is the ultimate object, yes.

Mr. FAIRCHILD: Well, let him state then—

A. Purity of glucose".

Q. That is another term?

A. Those are the only two that are mentioned on this, "purity of glucose" and "acidity of glucose" determinations that we made.

Q. Any where in this report did they use the term corn syrup?

A. Not to my knowledge.

Cross-examination by Mr. FAIRCHILD:

Q. Was there any flavoring or mixture of any kind or was it just straight, simple glucose?

A. There was no flavoring.

152 Q. It wasn't a mixed compound then, it was just simply glucose that is contained in that report?

A. No, it was a mixed compound.

Q. Were those samples that were examined in any way in the laboratory, or what were they reports of?

A. The glucose was tested for acidity and for sulphuric dioxide and the specific gravity or Baume strength. These three determinations were made in the laboratory.

Dr. T. B. WAGNER, being first duly sworn, testified as follows:

(Examined by Mr. OLIN:)

Q. Dr. Wagner, you reside where?

A. Chicago.

Q. Are you connected with the Corn Products Company?

A. Corn Products Refining Company.

Q. Refining or refinery?

A. Refining company.

Q. How long have you been connected with the company?

A. The company has been in existence only three years, but I have been connected with the predecessor of the company.

Q. About how long?

A. A period of ten years.

Q. What was the predecessor?

A. The Corn Products Company.

Q. Is is a new corporation that was formed or just a new name for the old?

A. The old name was Glucose Sugar Refining Company.

Q. That was how early?

A. Just about ten years ago.

153 Q. Then the Glucose Sugar Refining Company was preceded by what name?

A. By the Corn Products Manufacturing Company.

Q. And that was succeeded?

A. That company was not succeeded, that was merged with the Corn Products Refining Company, which was an independent concern.

Q. And the latter company was the one whose name was taken?

A. Yes.

Q. Wasn't there a separate organization at that time—distinct, separate reorganization?

A. Yes sir.

Q. But that has been in existence some three years?

A. Yes, two years and a half.

Q. What is the particular part of the work that you do for the company, doctor?

A. I am engaged in the manufacture of our various products.

Q. Have general supervision of it?

A. In an advisory capacity, yes.

Q. And have general charge of the getting of the product on the market?

A. No I have not.

Q. Who has charge of that?

A. A committee; the committee on manufacture.

Q. I show you an advertisement here in the Wisconsin State Journal of November 20, 1907. Is that one of the advertisements that your company sends out?

A. Yes sir—has sent out, yes.

Q. For some time?

A. Yes sir.

Q. Is this advertisement you see in the issue of February 20, 1908, of the Madison Democrat also one that the company sends out or authorizes?

A. Yes sir.

154 Q. And the same in the issue of February 11, 1908, of the same papers?

A. Yes sir.

Q. And the advertisement in the issue of February 27, 1908 in the Madison Democrat?

A. Yes sir.

Q. And the advertisement in the Madison Democrat of April 9, 1908, was that authorized by the company?

A. Yes sir.

Q. And the one in the issue of April 2, 1908 of the Madison Democrat?

A. Yes sir.

Q. And the one in the issue of March 19, 1908 of the Democrat?

A. Yes sir.

Q. Just a word as to this latter one to get it into the record. That has a sort of a circle with the ears of corn represented, does it not?

A. Yes sir, two ears of corn?

Q. I show you one in the issue of the Wisconsin State Journal of November 20, 1907. Is that also authorized by your company?

A. Yes sir, I think so.

Q. I show you a publication entitled The Grocery World, purported to be printed at Philadelphia and New York, under date of December 9, 1907. Are you familiar with that publication, doctor?

A. I know its title, its name.

Q. On the last sheet, or rather the last page exclusive of the cover, in that issue, do you find an advertisement from your company of its products?

A. I see an advertisement. I don't know anything about it, however.

Q. You don't recognize that as one of your advertisements?

155 A. I see our name attached to it. I have not seen the advertisement before it was printed.

Q. You saw it after it was printed.

A. The first time I have seen it is now.

Mr. OLIN: We offer in evidence the advertisements to which the attention of the witness has been called in the different issues of the Madison Democrat and the Wisconsin State Journal, of the dates testified.

Received in evidence and marked as Exhibits as follows: Wisconsin State Journal, issue of November 20, 1907, marked Exhibit 21; Madison Democrat, February 11, 1908, Exhibit 22; issue of February 20, 1908, Exhibit 23; February 27, 1908, Exhibit 24; March 19, 1908, Exhibit 25; April 2, 1908, Exhibit 26; April 9, 1908, Exhibit 27; which exhibits are hereunto attached and made part hereof.

Q. I show you a can here, marked for identification Exhibit 28 and ask you whether that is one of the forms this article was sent out in?

A. It is our brand, and it seems to me to be quite an old label. It doesn't agree with the present label as it is put up.

Q. How does it differ, what is the prominent label on the can?

A. Golden Glory Corn Syrup with Cane Flavor.

Q. The prominent words are Golden Glory Corn Syrup, are they not?

A. Yes, on this label, and equally prominent the words 10% refiners' syrup and 90% corn syrup.

Q. Well, that shows for itself, it is marked here, whether that is equally prominent. It also has a figure of the ear and plant of the corn, hasn't it?

A. Yes sir.

Q. That has marked I see November 11, 1907 in lead pencil. I will assume that that is the date of the sale of it here, doctor?

A. I presume the retail sale.

156 Q. I show you here a paper that has been marked Exhibit 29 for identification and ask you to state whether that was one of the labels that your company put out?

A. This was a label gotten up by my company and intended solely for the Michigan trade.

Q. It don't get up into Wisconsin you think?

A. Not through us. A man might purchase a can in Michigan and bring it up here in Wisconsin, that is beyond our control.

Q. You decline to sell this stock to people in Wisconsin you mean?

A. Only the Michigan trade would ask for this sample, because it complies strictly with the Michigan law.

Q. Well, you don't know of your own knowledge whether this was ever sold in Wisconsin or not?

A. I know that our syrup department sells this class of goods under that label only to Michigan—at least with the distinct understanding to the trade that the product is intended for the state of Michigan.

Q. That also has quite prominent at the top the plant and ear of the corn bound together?

A. Yes sir, together with the words "White Ribbon Corn". That is a trade mark.

Q. And that seems to be Kairomel Brand. Then right under that in large type Corn Syrup for Table Use?

A. Yes sir.

Q. Is that term Kairomel used now?

A. Yes sir.

Q. Is that word Karo sort of a contraction for that?

A. No sir, no connection.

Q. I now show you a paper marked for identification Exhibit number 30 and ask you to state whether that is one of the labels your company was sending out?

A. I don't know this label.

Q. Well, it has Davenport Refinery on it, hasn't it?

157 A. It has on it, "Packed by Davenport Refinery, Davenport, Iowa".

Q. That is one of the branch concerns of your company, isn't it?

A. Not under that name. It was known to the trade in years gone by as the Davenport Refinery. This label appears to me to be a very old label and I do not know whether it was gotten up by my company or the old Davenport concern ten years ago or so.

Q. You don't know that goods were being sold here in Wisconsin just before the passage of the law of 1905 by this company under that label?

A. I had no knowledge of that.

Q. You wouldn't say that they were not?

A. I wouldn't say they were.

Q. Or that they were not?

A. No, I have no knowledge of it whatsoever.

Q. You recollect, don't you, of having seen that label before?

A. No, I do not recollect that I have seen that label before.

Q. Nothing like it? I don't mean this identical one—whether you have seen one like that?

A. This label is called Our Pride Sorghum. I have seen labels of our own with Sorghum Substitute or Sorghum and Corn Syrup or Corn Syrup and Sorghum.

Q. I did not have that in mind when I asked you the question. I refer to the pictorial representation in the center of the Exhibit, of parties cutting the corn.

A. Yes, I have seen that on our labels, something similar to that at least I will say.

Q. That represents the harvesting of the corn plant, doesn't it—is meant to do that?

A. I don't know. The pictures are certainly not artistic, and it leaves a man in doubt whether that is a corn field or cane field.

158 Q. Well, I will show you the successor of it, which I think will enable you by the other terms on it, Exhibit 31, that will leave no doubt I guess as to what is meant.

A. My criticism would still hold good, Mr. Olin.

Q. I know, but with the other wording on the label you would

be able to distinguish, would you not, whether it was a corn field or whether it was something else?

A. Well this says very plainly, 40% sorghum and 60% corn syrup, glucose mixture.

Q. And has the central picture, has it not, of the parties cutting apparently corn?

A. Well I don't know whether that is corn or cane, or what it is. I wouldn't think of putting out that kind of a cut.

Q. No, we want to get the history of this to know what your company was doing in 1905.

A. This company was not organized until 1906.

Q. You became the successors to them?

A. Yes, we became the successors to them.

Q. I now show you, doctor, a paper marked for identification Exhibit 32 and ask you to state whether you recognize that as one of the labels under which the Corn Products Company disposed of its product at any time?

A. I do not recollect this label, and the name appearing on the label, "Chicago Refinery" leads me to believe that this is a different concern than the Corn Products Company. There was the Chicago Refinery or Chicago Syrup Refinery with which we were not identified.

Q. Was there any concern in Chicago at that time by the name of Corn Products Company other than the one you were identified with?

A. What time?

Q. 1905.

A. The Chicago Syrup Refinery or Chicago Refinery.

159 Q. I didn't ask you that—under the name of Corn Products Company.

A. 1905?

Q. Yes.

A. Yes, Corn Products Company.

Q. Well, that was your name?

A. Yes.

Q. There was no other company?

A. No, not that I know of.

Q. And there hasn't been at any previous time, has there, that you know of?

A. I do not think so.

Q. Now, as refreshing your recollection as to whether or not this was a label sent out by the Corn Products Company that I first showed you, Exhibit 32, will you now look at Exhibit 33.

A. Well, this is an entirely different label, radically different than the first one you showed to me.

Q. You can point out the difference.

A. The first label, gotten up by the concern Chicago Refinery, with which I am quite sure we were not connected, has on it the statement. Pure Louisiana Molasses. Whatever that was I do not know. The second label, "Packed by Corn Products Company, Chicago, U. S. A." which is one of the concerns which we have succeeded, has a label called Louisiana Glucose Mixture in very large type and further explained by a statement 40% molasses, 60% corn syrup.

Q. Now, you may not have observed it, but isn't that the same label as the other, except after the law of 1905 it was modified or changed to comply with the Wisconsin statute, the second one.

A. In answer to that I will say these are not labels of our own make, these are stock labels carried by the printer and offered to any syrup dealer, jobber or manufacturer.

Q. Well, I didn't mean to dwell on the point as to whether
160 you printed them, but I am simply calling your attention to what you put out on your goods, whether you printed them or somebody else did.

A. I would say there is a radical difference between the two labels however, I cannot identify the first one.

Q. Each of them has on it the term Louisiana hasn't it?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. Are you certain that this label on Exhibit 32 Pure Louisiana Molasses, Packed by Chicago Refinery, was not one of your company's labels?

A. I cannot place it.

Q. Or any of the labels of your predecessor?

A. Yes, that is my impression.

Q. Do you know whether this label represents molasses or corn syrup?

A. I would ask to be shown that label. I don't know which one it is.

Q. And I will add to that, whether the picture there is not the picture of cane?

A. I think this label states very plainly that this is Pure Louisiana Molasses, and there is the pictorial representation of a cane stalk.

Q. Not a corn stalk, but a cane stalk?

A. A cane stalk.

Q. Did your people during your administration put up a thing like that?

A. No sir.

161 GLENN P. CROSSMAN, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live Mr. Crossman?

A. Milwaukee.

Q. What is your business?

A. A merchandise broker.

Q. How long have you been in the business of merchandise broker in Milwaukee?

A. Continuously since 1874 down. I think it was May or June, 1874?

Q. As a merchandise broker have you handled syrups?

A. Yes.

Q. Directly with the retail trade or jobbers?

A. Jobbers.

Q. Does your business extend all over the state or confined to Milwaukee?

A. Milwaukee.

Q. Have you known of the manufacture of a product called Corn Syrup?

A. I have.

Q. When did you first know of it?

A. I first heard the name of corn syrup and knew about it in 1870.

Q. Where?

A. At Green Point, Long Island. There was a refinery there making corn syrup.

Q. Corn syrup from the grain?

A. I don't know what they made it out of. I supposed it was from the grain. That was common syrup; that is all I knew. I only saw the syrup.

Q. Have you seen the material out of which it was made?

A. I have seen the material after it was made.

Q. No, have you seen the material out of which it was made. Do you know whether it was made out of grain or what it was made from?

A. I don't know.

Q. Was it sold as corn syrup?

A. Sold as corn syrup.

Q. Was that quite extensive?

A. Yes, it was quite a large refinery.

Q. Now, did you later on come to Milwaukee?

A. Yes, in 1874. I came about May of 1874.

Q. Did you know of the manufacture there of corn syrup?

A. I did.

Q. When was that?

A. It was about 1876 or possibly '77 somewhere along there. I have no record of it, but it was about that.

Q. Did you handle any of the product from that factory?

A. I did.

Q. In your regular business as a broker?

A. Yes sir.

Q. Do you know about how many years you handled it?

A. About one year.

Q. Did the factory go out of business there?

A. The factory moved to Chicago. They moved it from Milwaukee to Chicago, or from Humboldt, it was a little place just north of Milwaukee on the Milwaukee river. They gave up their business there and took it to Chicago.

Q. Do you remember the name of that company?

A. Maize Saccharine Company, but I am not sure.

Q. What form did they put up corn syrup in?

A. In barrels.

Q. Did you handle it in barrels?

A. I sold it that way, all that they made exclusively.

Q. Did you sell their entire product?

A. I sold their entire product so far as I know. If they got any away from me I didn't know it.

Q. Do you know what that was made from?

A. Corn I suppose. Talking with the superintendent at that time, that's what he said, it was made from corn.

Q. Have you handled that syrup since for any one else?

A. Well, the next one I sold it for was a refinery at Rockford, Illinois, but I forgot the name. A. M. Johnston of Rockford was interested in it largely.

Q. How did you sell that, by the barrel?

A. By the barrel exclusively.

Q. Do you know whether that class of syrup was put up at that time in cans at all?

A. If it was I did not know it.

Q. Did you later on sell it in cans?

A. I did. Not for them. After they failed and went out of business I became acquainted with the Davenport Refinery and sold syrup for them, and they wanted it to be sold in cans and I afterwards introduced it to the Milwaukee grocers in cans and got them to take it that way instead of in barrels.

Q. Now, how long did you continue or down to what time did you continue to sell this article known as corn syrup?

A. I think it was about 1902.

Q. Did you know of a brand called Golden Glory?

A. Golden Glory, yes.

Q. Did you sell this article under that designation?

A. Well, that was the brand I think, Golden Glory, that was the brand at that time.

Court: At what time?

A. About when I noticed it, about 1900, or somewhere along there, I can't state the exact time, I have nothing to go by, just for the moment.

164 Q. Now, have you with you any of your books or letters or anything of that kind showing the sale of this article under the name of corn syrup?

A. Well, I have a book here, a cipher book published in 1881, and which I used in 1881 and afterwards for a number of years, in which they use the word- corn syrup.

Mr. OLIN: I object to that.

Q. Where is your book?

A. It is here. It isn't in cipher. It is a plain statement.

Q. This was the kind of a book that was used by brokers?

A. Yes sir, that was used by brokers. Green & Son were the brokers in New York and I was the broker in Milwaukee, and we worked together.

Q. Is that the book you have just spoken of as the cipher book, this small book?

A. It is.

Q. Now, to get at the meaning of this, in what were these ciphers used?

A. The cipher was used to save expense in telegraphing.

Q. And if you used a particular word this cipher code stated what that word meant?

A. Yes sir.

Q. I will call your attention to page 84 of this cipher book and ask you to state whether you find on that page the cipher for the words "Send samples corn syrup from — to —?"

Objected to.

Court: He may answer.

A. "Merged."

Q. Now, I ask you if all I read including that word "merged" is printed there in that book.

A. It is.

Q. Have you with you the copies of any letters written by 165 you—is that your copy book?

A. Yes, that is mine.

Q. Have you copies of any letters written in the ordinary and usual course of your business and sent out by you in which reference is made to the sale of corn syrup?

A. Yes.

Q. Under what date?

A. Here is one under date of August 7, 1890.

Objected to as immaterial.

Court: The answer may stand.

Q. Have you any objection to reading that?

A. No, I have not.

Q. Read it then and I offer it in evidence.

Objected to as being mere hearsay.

Court: It may be received.

"August 7, 1890.

Messrs J. R. Kennedy & Sons, Oshkosh, Wis.

DEAR SIR: Yours of the 6th inst. received. Knight's Syrup is 35c. Philadelphia, Pa. Revere, Extra Diamond, 32c. Boston. Both these refineries are oversold. No syrups in refiners' hands. At no time since May 1st have I been able to sell orders from either Knight's refinery or Revere or Standard. I am selling sugar syrup and can give you a close match for Knight's at from 28 to 30c. Freight, can only save two cents per gallon. Every prospect of higher prices. Corn syrup 30c. Milwaukee, no refusals, as the combination make prices on corn syrup. Would be pleased to receive your orders for Davenport goods, first-class goods, and as cheap as any. Can give you can goods. Twenty barrels from George F. Hunt's Black Strap".

166 Q. Now, have you got down as far as including all that was said about the corn syrup?

A. I think so, yes.

Mr. OLIN: Read the rest.

A. "13c. delivered Milwaukee; all others 14, and scarce. Sugar market strong. Granulated, Standard Refinery, 6.18 to arrive. I believe this to be less than cost and a good purchase. Nudavine, now 5.40 a barrel, Milwaukee. Anything you want in my line would be pleased to hear from you. Yours truly."

Q. Now, have you any other letter referring to corn syrup?

A. No, not that I know of.

Q. Have you in your possession now all your letter books?

A. No. I don't know how I happened to save this one.

Q. What is this on page 693?

A. That must have been in 1893.

Q. That is a letter written to?

A. The Davenport Sugar Refinery, Davenport, Iowa.

Q. Syrup Refinery, isn't it?

A. Yes, Syrup Refinery.

Q. Davenport Syrup Refinery?

A. Yes, Davenport Syrup Refinery.

Q. It is a cipher despatch isn't it?

A. Yes.

Q. But the words corn syrup are written out, are they not?

A. The words corn syrup are written out, yes. "Westward" is "Send samples of corn syrup to Roundy for selection. That was Roundy, Dexter & Company, or Roundy, Peckham & Company."

Q. Was that a name with which you always designated that particular syrup?

A. The corn syrup?

Q. Yes.

167 A. I never sold it under any other name all these years.

Q. Now, all that you sold came from this Davenport factory?

A. I don't know where it was shipped from.

Q. All that you sold for this Davenport factory was sold under that name?

A. That is the way I sold it always—no other way. I didn't know anything else, no other name.

Q. Now, you say you sold clear down to 1902 or '3?

A. Yes.

Q. Then you didn't carry on the sale of these goods any longer, it went over to some one else?

A. Yes.

Q. Do you know anything about how extensively that cipher book was used by the trade?

A. Well, it was issued in New York and was sent to brokers probably that had connection with the New York broker; he would send them to all his connections, using that one cipher. How extensively that was I have no means of knowing.

Q. Do you know about how extensively you sold this product there in Milwaukee, to how many dealers you sold?

A. From which refinery have you reference to?

A. Well, during the time that you sold down in 1903?

A. Oh, I sold all the grocery houses, all the wholesale grocers in Milwaukee.

Q. That letter there was a copy of one of your letters to one of your customers?

A. It was.

Cross-examination by Mr. OLIN:

Q. Mr. Crossman, if I understand you correctly, you don't know whether this early refinery you spoke of made the product from the stalk of the corn or the grain of the corn, from your own knowledge?

A. Not of my own knowledge. My recollection of it is
168 that the superintendent spoke to me and spoke to me about buying corn.

Q. I thought you used that expression about the superintendent speaking to you, not with reference to this early institution in Rhode Island, but with reference to the institution in Milwaukee?

A. Yes, in Milwaukee, the little plant that was up on the river.

Q. I was not asking about that. I was coming to that. The next knowledge you had of this article you call corn syrup was in connection you say with a small plant at Milwaukee?

A. Yes.

Q. That didn't last but a year there and went to Chicago—that is right, is it?

A. Yes.

Q. You have dealt in syrups, I understand, in its sale as a broker in Milwaukee from 1876, was it?

A. '74 I think.

Q. From 1874 down to about 1902?

A. Up to the present time.

Q. But since 1902 you haven't dealt in this article?

A. No, not in corn syrup.

Q. Have you had any other business, Mr. Crossman?

A. Oh, no, that wasn't my business. I introduced and represented—

Q. Have you had any other business than acting as a broker?

A. No.

Q. For the sale of syrups?

A. Oh yes, I represented the Nudavine—what is the name of it now—in Chicago, the American Cereal Company, or the Quaker Oats Company. I represented them for a great many years up to about two years ago.

Q. Any other interests you represented?

A. I represented Arbuckle Brothers of New York.

Q. They are manufacturers of what?

A. They make sugar, refine sugar, sell green coffees.

169 Q. Any other interest that you ever represented there as a broker?

A. Oh, yes. I don't think now that I represented any other different sugar refineries.

Q. The fact is the selling of this corn syrup has been a very small part of your business?

A. Oh, yes, it was a small part of my business.

Q. I think that you never sold corn syrup under any other name than corn syrup?

A. No.

Q. Did you know what it was?

A. Simply corn syrup. They would send me samples that this

was corn syrup and I would sell it in that way—sell it from the sample.

Q. Now, was it labeled corn syrup?

A. That I couldn't tell you. I never saw the packages themselves. I simply sent the orders in to the refinery and they shipped it to the grocer.

Q. You don't know whether it was labeled as Sorghum Mixture or Fancy Drips?

A. No sir.

Q. Or New Orleans Molasses, or anything of the kind?

A. No sir.

Q. All you were seeking to do was to get a product, and you understood, that was manufactured some way from corn?

A. Yes sir.

Q. You understood it that way and you sold it as that?

A. Yes sir.

Q. How it was represented as it was sold to the customer you have no knowledge whatever?

A. No sir.

Q. Or how it was labeled?

A. No sir.

Q. Don't you know as a matter of fact, take it in this state,
170 that up to 1905 there was very little, if any, syrups sold that were labeled and sold to the consumer and labeled corn syrup—don't you know that as a fact?

A. I don't know how much there was or what it was labeled, because I didn't see the packages.

Q. Well, didn't you, in dealing with your customers, ascertain that fact, that instead of being labeled as corn syrup they were labeled in some way to represent that it was cane syrup or sorghum or molasses or maple syrup?

A. The question never came up at all.

Q. Well, you knew there was a great deal of these mixtures sold to the consumers?

A. I knew there were mixtures sold.

Q. You knew that this article that was manufactured from corn was a cheaper article than the grade of cane syrup and molasses made from the sugar cane and from sorghum and from the sap of the maple tree?

A. I always understood those things. I never sold any maple syrup. I have sold sugar syrup, made from sugar cane. I have sold that, but of course I never saw the packages. It was sold to me as such.

Q. But, as I understand it, you don't pretend to say what this article was labeled when it was sold?

A. I couldn't tell you.

Q. I think in this letter that you wrote, if you will turn to it, you stated something with reference to the corn syrup, the price of it being 30 cents?

A. Yes sir.

Q. Just turn to that part of it again. What is said in that col-

nection about who fixed the price and the reason for it? You read something there that I didn't quite catch.

A. "As the combination make prices on corn syrup" is
171 that what you have reference to?

Q. What do you mean by that, as to the combination making prices?

A. I suppose it probably was different refiners at that time, corn syrup refiners made a price. I haven't it distinctly in my mind now, but I presume they belonged to it, and that is what I had reference to.

Q. Well, if you don't know that fact then, you learned it in 1902, that there was such a combination?

A. Yes, that was formed afterwards under some name, and I still continued with them after they were consolidated.

Q. Did you know at that time or through all these years what glucose was?

A. I had nothing to do with glucose. I just knew it as corn syrup.

Q. Well, you knew what the substance was, glucose?

A. Yes.

Q. Well, did you know that most all of this product during these years, that you ordered as corn syrup, was made out of glucose, or didn't you?

A. Why, the question didn't come up with me at all.

Q. You never thought of it?

A. It wasn't the principal part of my business, although I sold it for a number of years, I didn't think much about those things, I may have been told so, I may have known it in a general way, but for my own personal knowledge I don't think—I don't think I was ever in the Davenport factory or the one at the river there or in the Rockford factory, I have no recollection of it, so I know nothing about that part.

Q. You didn't care very much what it was made of?

A. Well that wasn't my business. They were to protect the goods, I was to sell them.

Q. You sold all you could?

A. I sold all I could.

172 Q. For as high a price as you could.

A. They fixed the price. I had nothing to do with that.

Q. You got your commissions?

A. Well, I got it all, yes sir.

Q. I hope you did?

A. I did. It paid all right.

T. H. GRADY, being first duly sworn, testified in behalf of the defendant- as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Grady, you are a defendant in this action?

A. Yes sir.

Q. And sold this can of corn syrup to Mr. Larson?

A. I think so.

Q. Where did you buy that syrup?

A. McNeil-Higgins Company of Chicago.

Q. Was it shipped by them from Chicago to you?

A. Yes sir.

Q. In what?

A. It came in a case, twelve pails in a case, in the half-gallons, and six in the gallons.

Q. The case was a wooden box?

A. A wooden box, yes sir.

Q. Well, what did you do with it when you got it?

A. Well, I opened it up, set it back of the counter on a raise of about six inches from the floor and piled it up there.

Q. You mean you put the box there or——

A. No sir, took the cans from the box.

Q. What did you do with the box?

A. Why, I threw it out I guess.

Q. The same as you always do with all boxes?

173-175 A. Yes sir.

Q. That is the customary way you handle your goods, is it?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. You say there were twelve cans or pails in the box, Mr. Grady?

A. Yes sir, twelve half-gallon, five pound.

Q. That is what you call a half-gallon is it?

A. Yes sir.

Q. Do you know how this case that you speak of in which these twelve cans were placed was labeled on the outside?

A. No, I do not.

Q. Was it labeled in some way?

A. I don't think they label them what's in the cases, perhaps they do some, but I didn't notice that one in particular.

Q. But you do know that you took all of the cans out and you put them on your shelves?

A. Yes sir.

Q. As you were in the habit of doing when you bought goods shipped in to you from the person you purchased them from?

A. Yes sir.

Q. And you had sold, as you remember, how many of the cans from this case before you sold this one?

A. Not very many. I just had it two or three days. Two or three cans I should think.

Redirect examination:

Q. Do you know whether that box was stenciled or not on the outside?

A. I couldn't say, no sir.

176 O. B. McCLASSON, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live?

A. Chicago, Illinois.

Q. What is your business?

A. I am in the wholesale grocery business, secretary and treasurer of the McNeil-Higgins Company.

Q. Are you an officer in any other association?

A. I am vice-president of the National Wholesale Grocers Association.

Q. How long have you been connected with this institution of McNeil & Higgins?

A. About nine years. Since the death of Mr. Higgins.

Q. In any particular capacity, and if so what?

A. Why, I am known as the secretary and treasurer of the company. It is my duty to look after the help, department managers, general all-around supervision.

Q. Has your concern dealt in corn syrup?

A. Yes sir.

Q. How long have you been selling corn syrup?

A. Well, I should say from my own knowledge five or six years, when my knowledge was first called to it.

Q. Are you selling the product of any particular concern?

A. I think the Corn Products Refining Company, we are selling their goods.

Q. Have you sold this Karo Corn Syrup?

177 A. We have.

Q. Do you know for how long you sold it?

A. Oh, I couldn't say positively. I should say three or four years.

Q. Do you sell it in Wisconsin?

A. We sell it in all the states.

Q. In all the states?

A. Well, in most of the states, I wouldn't say in all the states.

Q. Have you traveling salesmen in all the states, or most all of them?

A. A good many of the states; not in the eastern or far western states, we don't sell much.

Q. Central?

A. Usually within a radius of four or five hundred miles of Chicago we are selling.

Q. Have you more than one salesman in Wisconsin?

A. Yes sir.

Q. How many salesmen in Wisconsin engaged in the selling of this syrup?

A. I should say about ten or twelve.

Q. Do they cover the whole state?

A. Not every town in the state. Principally in the southern part of the state.

Q. Well, are they all confined to the southern part of the state?

A. No, we sell goods in the northern part, up in Minnesota and Wisconsin.

Q. Well, do they pretend to cover practically all of the larger towns and cities in the state?

A. I wouldn't say that we were selling it in every city in the state.

Q. Well, I said all the larger towns and cities.

A. I wouldn't say in all the larger towns.

Q. Do you sell to retailers and wholesalers also?

178 A. Exclusively at wholesale to the retailer.

Q. Do you sell in barrels and kegs or half barrels, as well as in cans?

A. I don't know of any except in cans.

Q. You may have?

A. We may. I don't know. I haven't had it called to my attention if it is sold in barrels.

Cross-examination by Mr. OLIN:

Q. Of course, you didn't mean that you had ten or eleven agents up here in Wisconsin selling this article alone?

A. No sir.

Q. You simply have agents representing your house?

A. That is a small part of the business.

Q. Do you remember, Mr. McGlasson, whether up to the passage of the law in 1905 in this state you sold any of this article under the name of corn syrup or whether you sold it under some other name?

A. I think it was designated as corn syrup before that time.

Q. How long would you say you had sold any in this state under the name of corn syrup?

A. I should say back of four or five years.

Q. Now, aren't you mistaken about that? You mean about four or five years from the present time?

A. Yes, from the present time.

Q. That would make it somewhere about 1904 you think?

A. I should say so. I wouldn't be positive about the date.

Q. Your company has been selling in the state a large variety of these syrups, haven't you, prior to 1905?

A. Why, I presume, like all jobbers.

Q. Under various names, such as sorghum, Louisiana Molasses, Fancy Drips, under the name of maple syrups that were not

179 maple syrups or syrups at all.

Objected to as not proper cross-examination.

Objection sustained.

Q. I think you said that as far as you were concerned you don't remember of dealing in anything other than the cans or pails, Mr. McGlasson?

A. I don't remember, no sir.

Q. It is your best recollection that you haven't?

A. I wouldn't say. I have no knowledge of it.

Dr. RICHARD FISCHER, being recalled by the prosecution, testified as follows:

(Examined by Mr. OLIN:)

Q. Have you since you were on the stand, doctor, secured a copy, as was promised, of the proposed food law as recommended by this committee?

A. Yes.

Q. Have you got it with you?

A. Yes. (Produced by witness.)

Q. Where did you get this from, Doctor?

A. I received it through Mr. Emery. I understand that Mr. Emery received it from the secretary of the committee.

Q. What instructions if any were given there at your meeting at Mackinac to this committee as to the incorporation in this proposed law of these food standards?

Objected to as incompetent, irrelevant and mere hearsay.

Objection overruled. Exception by defendant.

A. The association instructed the committee to draft a model pure food law in which the standards adopted at Mackinac should be incorporated.

180 Q. Was there any dissent from that vote, do you remember in the association at Mackinac?

A. I don't think there was a dissenting vote, as I recollect.

Q. Have you looked through the proposed law to compare the same with the standards adopted at that meeting of your national association to see whether or not those standards are incorporated in this proposed law?

A. I sent to the secretary of the committee a certified copy of the standards adopted at Mackinac and since the receipt of this bill I have looked over the standards on molasses and refiners' syrup, on syrup and on glucose products, and I find that these standards correspond to the ones adopted at Mackinac.

Q. You haven't examined as to the whole of the bill?

A. No sir, I haven't looked it over.

Q. But you have stated the instructions given?

A. Yes sir.

Q. Have you got with you a copy of the standards as passed at Mackinac?

A. No, I have not. They have not been printed. I have a copy of them. I hold a copy as chairman.

Q. You can produce that, can you, in the morning?

A. Why, it is hardly in shape so that I could produce it. I can get it out though in a day or two.

Q. That is, it has not been run off you mean?

A. It has not been printed in its present form. It hasn't been typewritten in its present form.

Q. It is in longhand?

A. No it isn't. There were very few changes made from the printed standards of the Jamestown meeting. There were certain

additions, but very few changes, and it would be necessary to make a copy of those changes and of the additions.

181 Mr. OLIN: I will offer in evidence that Circular No. 19. (Marked Exhibit 34.)

Mr. FAIRCHILD: I object to it as incompetent, because the standards promulgated by the secretary of agriculture are not legal standards in the state of Wisconsin.

Received subject to the objection; hereunto attached and made a part hereof, so far as material and not already included herein.

Exception by defendant.

J. Q. EMERY, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, you are the dairy and food commissioner of this state, are you not?

A. Yes sir.

Q. You have held that position for how long?

A. Since December 24, 1902.

Q. Before that did you hold some official position in this state?

A. Yes sir.

Q. What was that?

A. I was state superintendent for four years.

Q. Prior to that you were at the head of one of the normal schools?

A. For four years, yes sir.

Q. You are familiar with the legislation that has been adopted in this state in 1905 and 1907?

A. Relating to foods, yes.

Q. And you are familiar with the history of the pure food legislation of the state prior to that time?

A. In a general way, yes.

Q. Were you present, Mr. Emery, at the meetings that have been referred to at Portland and Jamestown and at Mackinac?

A. I was not at Portland. I was at Jamestown and Mackinac.

182 Q. Were you at the meeting at the time the standards were adopted at Jamestown?

A. Yes sir.

Q. Do you remember whether they were adopted by unanimous vote?

A. That is my recollection, that there was no vote against them.

Q. Do you remember whether that vote adopting these standards was at the same session and following a discussion of a paper read by Dr. Wagner of the Corn Products Company?

A. Yes sir, I remember that very distinctly.

Q. There was some discussion about the paper, was there not?

A. Yes sir. I took part in it.

Q. Were you present at the meeting of the association at Mackinac?

A. Yes sir.

Q. And at the time the vote was taken there adopting the standards referred to by Dr. Fischer?

A. Yes sir.

Q. Do you remember whether or not that vote was unanimous or otherwise?

A. My recollection is that it was unanimous, that there was no vote against it.

Q. Do you remember the appointment by that organization of a committee to prepare a proposed uniform pure food law for the different states?

A. I do.

Q. Can you state who were appointed on that committee?

A. Yes sir.

Q. Do you know who was chairman of it?

A. Yes sir, Dr. Ladd, who was then president of the association, was made chairman of the committee.

Q. Is he the commissioner for North Dakota?

A. Yes sir.

Q. At the present time?

183 A. Yes sir.

Q. And has been for how long, do you know?

A. Well, he has been since the food law of North Dakota was established. He has been commissioner as long as I have been commissioner. I met him at St. Paul and have met him at all meetings I have attended since.

Q. Who are the other members of the committee?

A. Mr. Baird, dairy and food commissioner of Michigan; Mr. Faust, dairy and food commissioner of Pennsylvania; Mr. Scovell, director of the experimental station and also in charge of the food work in Kentucky, and Mr. Bigelow of the bureau of chemistry of Washington, D. C.; Mr. Allen, who has been in special charge of the food control work at Kentucky; and one other, there were seven of them. I am not sure whether I named six or seven.

Q. There is one other, is there?

A. That's my recollection, but I can't recall the name at this time.

Q. Was there at that meeting at Mackinac a code adopted instructing this committee to incorporate in the proposed uniform food law the standards that had been adopted at that meeting?

A. Yes sir.

Q. Do you remember whether there was any dissenting vote on that question?

A. My recollection is there was not.

Q. Now, Mr. Emery, do you recall what the fact is as to the names or terms under which these different mixtures were sold or have been sold in this state prior to the enactment of the statute of 1905?

A. I do.

Q. You may state what the fact is as to that matter.

A. The fact is that these mixtures were being sold under the

184 name of Syrup, Table Syrup, Golden Syrup, Honey Drips, Sorghum, or Our Pride Sorghum, Pure Louisiana Molasses, and other kindred names.

Q. Fancy Drips?

A. Well, I can't remember all of them.

Q. Candy Drips?

A. Yes sir, Rock Candy Drips.

Q. Now, the law of 1905 required, did it not, a change of the name under which these things were being sold?

A. Yes sir.

Q. Were you familiar with the labels that were being used by the different companies in the disposition of these mixtures that you now have spoken of?

A. As presented to me by them, yes.

Q. You mean representatives of the company?

A. Well, representatives of food men. I can't name those people, but people who came to my office to get approval of their labels for the marking of their products in this state.

Q. I will ask you, Mr. Emery, to look at Exhibits number- 30 and 31 and state whether you have seen those before?

A. Yes sir.

Q. Do you know how they came into your possession?

A. Yes sir. They came into my possession by representatives of food companies bringing them to me for approval.

Q. Exhibit 30 has near the bottom "Davenport Refinery, Davenport, Iowa," has it not?

A. Yes sir.

Q. At the top Our Pride Sorghum. Besides that, over to the left, is "Choice Quality," isn't it?

A. Yes sir.

Q. And over to the right "Full Weight"?

A. Yes sir.

Q. And in this circle in the center is a picture of what?

A. I should call it a picture of a sugar-cane field, with a
185 sugar-cane factory over there.

Q. Sugar-cane or corn, can you tell?

A. Well, I regard it as sugar-cane. It may be sorghum.

Q. Was that label brought to you?

A. Yes sir, that label was brought to me.

Q. After the law of 1905 was passed?

A. I remember it very distinctly.

Q. Now, was that label modified, and is that modification shown in Exhibit number 31?

A. That was the label modified and approved by me under that statute, that it would lead to no contest if offered for sale in this state.

Q. They wanted to get up a label that would avoid conflict with the law?

A. Yes sir.

Q. And that label has headed, hasn't it, 40% Sorghum, 60% Corn Syrup?

A. Yes sir.

Q. Then the other part of it the same as the first, isn't it, excepting at the bottom, is "Glucose Mixture"?

A. Yes sir.

Q. Now, who required or how did that come to be put on there "Glucose Mixture"?

A. Well, the law of 1905 required that these mixtures should be sold under one of two names, either glucose or corn syrup, corn syrup mixture, those two words were used in the statute; and in the case of this substance, sorghum, there was no possible way in which corn syrup could be used upon it to make that sell, and they were compelled to use the words glucose mixture.

Q. With the term corn?

A. The law required that they should put the percentages of the ingredients on the label in a certain style and size of type, and thus conform to the provisions of that statute.

Mr. FAIRCHILD: You say that you required that?

A. I required that as a matter of approving it under the statute of Wisconsin of 1905.

Mr. FAIRCHILD: I want to get at whether you required that.

A. Well, I required, as a matter of the statute, that it should be labeled "Glucose Mixture" or "Corn Syrup." The law gave them that privilege. I had no power to say whether it should be one thing or the other.

Q. After that interview they got up this label?

A. Yes sir, and left that with me as a guaranty of good faith.

Q: Do you know whether the representatives of this company at Davenport represented to you that the article which was labeled as Our Pride Sorghum, as shown by Exhibit 30, was the same article under the next label.

A. That was the representation made to me.

Q. Will you state what your recollection is, Mr. Emery, as to the sale in this state prior to 1905 of syrups under the name of so-called syrups under the name of corn syrup.

A. It had not come to my attention at all, with probably one or two exceptions. I think there may have been in 1904 a few sales under the name of corn syrup—that is, called to my attention.

Q. I now show you, Mr. Emery, Exhibit number 33, and state how that came into your possession?

A. In the same way, from a representative of some of these people with regard to securing the approval of the label for the product to go onto the market.

Q. That has on it, has it not, "Packed by Corn Products Company, Chicago, U. S. A."

A. Yes sir.

Q. Is this the form of the label as it was first brought to you, or was the label that was brought to you modified later to correspond to what you have there?

A. The other label was Louisiana Molasses, and it was necessary to change the label for that, Louisiana Glucose Mixture.

Q. I don't know that the fact is, I may be mistaken, and I judge

from what Dr. Wagner says that he claims we are. Here is Exhibit 32, and is there any connection, if you know, between those two Exhibits?

A. These two came to me together.

Q. 32 is the one headed Pure Louisiana Molasses?

A. Yes sir, and that is the label that had to be modified.

Q. You think then that there is a connection between those two?

A. Yes sir.

COURT: The two are Exhibits 32 and 33, are they?

Q. Yes, Exhibits 32 and 33, 32 coming first and 33 following as the modified label.

A. Yes. I have a distinct recollection of those.

Q. Why do you say that?

A. Because of the complaints that the representatives made that there was no possible escape from calling that "Glucose Mixture" L.

Mr. FAIRCHILD: I ask that that be stricken out. It is simply a hearsay statement, it doesn't give anybody's name, it doesn't show that the one making it represented us in any way.

COURT: The answer may be stricken out.

Q. Do you remember who the party was?

A. I cannot recall positively. I know that Dr. Wagner came to me once, and there was other parties came to me, Mr. Host of Milwaukee came, Mr. Ira B. Smith, representing the Wholesale Grocers' Association.

Q. Well, they came from the other side?

A. On the general principles of securing a general approval of label by which the products could be marketed without any protest on the part of the dairy and food commissioner.

Q. I hand you now a paper that has been marked for identification Exhibit number 35, and how did that come into your possession?

A. Yes sir, in the same general way that the others did.

Q. This is marked differently though, isn't it?

A. Yes.

Q. Golden Glory Corn Syrup is prominent, isn't it?

A. Yes sir.

Q. With Davenport Refinery, Davenport, Iowa?

A. Yes sir.

Q. With "90% Corn Syrup" over to the left and "10% Cane" over to the right?

A. Yes sir.

Q. Exhibit 29 is shown you. Where did that come from, do you know?

A. It came to my possession in the same general way that the others did.

Q. That purports to be a label of the Corn Products Company, doesn't it?

A. The Glucose Sugar Refinery Company, Chicago.

Q. Does it say the Glucose Sugar Refinery Company?

A. Yes sir, and also, "Packed at the Davenport Refineries."

Mr. OLIN: Now, we offer in evidence Exhibits number- 30 and 31. We also offer in evidence Exhibits 32 and 33.

Q. I think I asked you whether the same party came with reference to those two exhibits?

A. Yes sir, I received those from the same party.

Q. And one of them, Exhibit 33, is marked Corn Products Company?

A. Yes sir.

Mr. OLIN: So we offer those two in evidence. We also offer in evidence Exhibit 35.

189 Dr. T. B. WAGNER, being recalled, testified as follows:

(Examined by Mr. OLIN:)

Q. Showing you Exhibit 29, I see it is one of the labels I showed you that had Kairomel Brand, that you say was gotten up for Michigan. Now I notice at the right-hand here it says "Packed at Chicago and Davenport Factories of the Glucose Sugar Refinery Company, Chicago." That was a term under which you advertised your company as the Glucose Sugar Refinery Company?

A. Yes. That is several years ago.

Q. I thought you said it was three or four years ago. How long ago was it?

A. Your inquiry refers to Glucose Sugar Refinery Company?

A. Yes, Glucose Sugar Refinery Company.

A. Well, that name went out of existence several years ago.

Q. Well, when?

A. Three years.

Mr. OLIN: We offer that in evidence, Exhibit 29. We also offer in evidence this can that I showed Dr. Wagner and was marked for identification Exhibit 28, the Golden Glory can.

Recess until 9 A. M. December 30, 1908, at which time the trial was resumed.

190 W. J. TECKEMEYER, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Teckemeyer, where do you reside?

A. Madison.

Q. What is your business?

A. Manufacturer of confections.

Q. A candy manufacturer?

A. Yes sir.

Q. Here in this city?

A. Yes sir.

Q. How long have you been in that business?

A. Oh, in the neighborhood of twenty years.

Q. How extensive in a general way is your business, Mr. Teckemeyer?

A. We manufacture and wholesale.

Q. You in your business use what is known as glucose?

A. Yes sir.

Q. To what extent say a year?

A. Oh, it varies, in the neighborhood of a hundred barrels a year.

Q. And about how much is there in a barrel?

A. They run around six hundred pounds.

Q. How long have you been using that article?

A. Why, ever since we have been in the business of manufacturing.

Q. And that is how long?

A. In the neighborhood of twenty years that I have been at it.

Q. Under what name have you bought it?

A. Glucose.

Q. Have you ever bought it under any other names?

A. No, that is, I haven't bought it under any other name.

Q. Have you lately had any shipped to you under any other name?

A. Why, my last bill was under another name.

191 Q. From what company was that?

A. The Corn Products Company.

Q. Under what name was that?

A. They called it corn syrup.

Q. Do you remember about what date that was you got that bill.

A. Some time in September I think.

Q. This year?

A. Yes.

Q. Did you order it billed that way?

A. No.

Q. What did you purchase?

A. I always called it glucose.

Q. And had you ever in your dealings with them instructed the Corn Products Company to bill your goods to you in a particular way?

A. No sir.

Q. Have you dealt at different times with other firms who manufactured glucose?

A. We used to at different times, that is, years gone by.

Q. Have you ever had any of this article billed to you other than glucose?

A. No sir.

Q. Have you ever in your business ordered it under any other name?

A. No sir.

Q. And has it ever to your knowledge been known to the trade under any other name, that is, to the manufacturers of candy, in your business, under any other name, until this shipment that you have spoken of?

A. Not that I know of.

Q. There is a sample, Exhibit number 1, what would you say as to that being the color of the article?

A. That's about it.

Q. Isn't it somewhat thinner than you buy?

192 A. That is somewhat thinner.

Q. I show you another Exhibit, 1a, and ask you how that compares with the article you purchase?

A. We have had it some times as dark as that.

Q. Have had?

A. Yes.

Q. That would be a little darker than you generally get it?

A. Generally, yes.

Q. Does it some times with age change in color somewhat?

A. Not that I know.

Q. You keep it in the barrels?

A. Yes sir.

Q. You don't know what the effect would be if it were separated out and exposed to the light in a small jar?

A. No, that I couldn't say.

Cross-examination by Mr. FAIRCHILD:

Q. This glucose that you have referred to was the unmixed glucose, wasn't it, that is, it wasn't mixed with refiners' syrup and cane syrup and prepared for table use?

A. We just call it glucose, and that's all.

Q. Well you didn't notice my question. This was just the glucose alone, it was unmixed with anything else, wasn't it?

A. The last bill I got was marked "unmixed."

Q. Well, was it simple glucose that you got, or was it glucose mixed with cane-syrup and prepared for table use?

A. No, simply glucose.

Q. You say that that article used in the manufacture of confectionery is known as glucose?

A. That is what we always called it.

Q. You have never called it anything else?

A. No.

193 Q. You are not attempting to state what name this article has when it is mixed with cane syrup or refiners' syrup and prepared for table use?

A. No, I don't know anything about that.

Q. Well, you have heard of Karo Corn Syrup, haven't you?

A. No, excepting what I seen in the papers lately, that's all.

Q. What you see in the paper, you say?

A. What I read in the newspapers.

Mr. OLIN: Lately, he said.

Q. The last bill you say was billed to you "Corn syrup, unmixed"?

A. Yes sir.

Q. You never got a bill before that billed in that way?

A. No sir.

Q. Did you receive any communication from the company giving any reason for this change of name just at this time for the un-mixed article?

A. No sir.

Redirect examination by Mr. OLIN:

Q. This Exhibit which I show you marked Exhibit A, was that billed to you in that way?

A. Yes sir.

Q. By this Corn Products Company?

A. Yes sir.

194 THOMAS F. PENDERGAST, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. You live where?

A. Madison.

Q. And have for how long?

A. Ten years.

Q. And what is your business?

A. Manufacturer of confectionery.

Q. For how long?

A. Ten years.

Q. Here at Madison?

A. At Madison.

Q. Had you been at that business at any other place before coming here?

A. I had been connected with a manufacturing confectionery in Watertown.

Q. For how long?

A. Fifteen years before.

Q. What firm?

A. Woodard & Stone.

Q. Did they during those years use glucose in their manufacturing?

A. Yes sir.

Q. Have you used it ever since you started for yourself?

A. Yes sir.

Q. In what quantities have you used it?

A. About two or three cars a year.

Q. That would make about how many barrels?

A. About 150 barrels.

Q. And has that been about the amount that you have used since you have been in the city?

A. Yes sir.

195 Q. And before that at Watertown do you know how many barrels that company used?

A. Why they dealt in it much more extensively.

Q. Now, during all this time how have these goods been billed to you?

- A. As glucose; that is, until the last bill.
- Q. Was it ever billed to you here at Madison under any other name excepting this last bill?
- A. Never before was it billed in that way.
- Q. It was bought by your firm under what name?
- A. Glucose.
- Q. Now, did you deal with this Corn Products Company?
- A. Yes sir.
- Q. And you spoke of the last bill. How was that billed to you?
- A. Corn syrup.
- Q. Did you order it that way?
- A. No sir.
- Q. When was it that you obtained it billed in that way, about?
- A. Why, in July, I presume, about.
- Q. Of this year?
- A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

- Q. The only glucose that you have ever used was in the manufacture of confectionery?
- A. Yes sir.
- Q. And that was unmixed glucose, that is, it wasn't mixed with cane syrup or refiners' syrup and prepared for table use?
- A. It was glucose.
- Q. That isn't my question.

Mr. OLIN: We don't claim anything of that kind at all from this witness. It was bought in barrels.

Mr. FAIRCHILD: It was bought in barrels and it was unmixed glucose.

Mr. OLIN: Certainly.

A. C. BLACKBURN, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

- Q. Mr. Blackburn, what are your initials?
- A. A. C.
- Q. What is your business?
- A. Wholesale grocer.
- Q. Are you interested and connected with the Gould, Wells & Blackburn firm here in the city?
- A. I am.
- Q. And have been for how long?
- A. Twelve years.
- Q. You are wholesalers?
- A. Yes.
- Q. And do you deal in what has been named here as corn syrup?
- A. We do.
- Q. And you deal in these glucose mixtures?
- A. We do.

Q. And have for how long?

A. Since I have been connected with the concern.

Q. Now since the enactment of the law of 1907 requiring these articles to be named in a particular way, you have sold them, have you?

A. We have.

Q. You are selling still the article manufactured by the Corn Products Company?

A. We are.

Q. That you sell, do you not, under the name of corn syrup?

197 Q. Which do you mean, their Karo?

Q. Yes, the Karo?

A. Yes sir.

Q. Now, do you also deal in these mixtures prepared by other parties?

A. Yes we do.

Q. And how have you been selling those, labeled how, since the act?

Mr. FAIRCHILD: I object to that as immaterial, because the act of 1907 requires a certain branding, branding as glucose, and while some may observe the act and others may not observe it, and showing how some may have observed it since the passage of the act, doesn't influence this case at all.

Mr. OLIN: We want to show by this witness, and follow it up, that they have persisted in violating the law and have threatened the commissioner that if he sought to enforce the law, and have so advised their agents, that that company would have him enjoined, and we want to show, therefore, the only reason there is why this company hasn't obeyed the law up to this time, and that they haven't a right to draw an inference here that they have a right to do business in this state, because they haven't yet been prosecuted under the law.

Mr. FAIRCHILD: I don't understand that they can in this case go into a question like this, because the Corn Products Company is not a party to this suit and the issue against these defendants cannot be influenced by what my friend has just now stated, any threat that some third party may have made in regard to a refusal to obey this statute. Now Brother Olin knows, as already appears here, that this particular company, with whom these defendants haven't dealt at all, has claimed from the very beginning that this act was invalid and for that reason have paid no attention to it.

COURT: Let me ask you Mr. Olin what effect upon the constitutionality of the law will the acts of any of the parties after
198 the passage have.

Mr. OLIN: I think perhaps the question divides itself into two parts. I think one part of this would be proper to show as against their claim, that it's entirely feasible and reasonable, as shown by the dealers here, to label this article just as the statute requires, and that it's now sold in this state by everybody else except-

ing this particular company or those who deal in their products under the name as the law requires.

COURT: Well, I will take that proof subject to objection, but I don't see that you have a right to go into any threats made by this company. He may answer subject to objection.

Exception by defendant.

Q. Have you been selling these mixtures under the name of glucose, say since the act of 1907, flavored with refiners' syrup?

A. We have, yes sir.

Q. Now, you stated that you are a wholesaler. Do you buy your product from the Corn Products Company direct or from other parties?

A. Direct.

Q. You buy it in single cans or in cases or boxes?

A. We buy it in cases.

Q. And how do you sell, in single cans, as wholesalers, or in cases?

A. In cases.

Q. According to the commercial usage do you know whether this article is sold by wholesalers to retailers in single cans?

A. Well, do you mean by single cans the small retail package?

A. No. I mean something such as you see here of these exhibits on the table.

A. Why, as far as I know the smallest package that the jobber sells to the retailer would be a case containing half a dozen or a dozen or two dozen cans.

Q. I show you here a box or case that I present and state whether that is similar to the cases.

199 A. That is the regular case, contains six of the large cans.

Q. And smaller ones twelve?

A. The smaller ones twelve. The still smaller ones twenty-four.

Q. Is it marked on the outside as this is, Karo Corn Syrup?

A. I think it is.

Q. Corn Products Company?

A. Yes sir.

Q. With the corn syrup trade mark?

A. Yes sir.

Q. On the sides of the case?

A. I think it also has a marking on the ends, if I recollect.

Q. It has on two sides, hasn't it, this one?

A. Yes.

Mr. OLIN: We offer that in evidence.

(Marked Exhibit 36.)

Q. Just to get it accurate here, taking one side, the brand contains in the center a circle, doesn't it?

A. Yes.

Q. About five inches across?

A. Well, I never measured it.

Q. Well, judging from appearances, it would be somewhere near there, wouldn't it?

A. Yes.

Q. And in that is "Karo" in large type and below "Karo Corn Syrup", and below that "Trade Mark".

A. Yes.

Q. Then over to the left is the word "Karo" is there not?

A. Yes.

Q. And over to the right is "Corn Syrup" isn't there?

A. I think they are all just about alike.

Q. Well, you find that there I mean?

200 A. Yes.

Q. And then over to the left and below that you find what?

A. Corn Products Manufacturing Company.

Q. Well, to the left you find "Corn Products" and over to the right, carried across is "Manufacturing Co."

A. Yes.

Cross-examination by Mr. FAIRCHILD:

Q. Did the article that you bought come in a box like that, Mr. Blackburn?

A. Why as near as I can recollect, without having the cases side by side, I would say that they were identical.

Q. And the can itself was marked how?

A. Marked as this can is here "Karo Corn Syrup".

Q. Did you purchase it before this law of 1907 went into effect?

A. We purchased it before and since.

Q. How long before?

A. Oh, I can't tell you that. We have purchased this brand of syrup ever since it was put on the market.

Q. Well, that is how far back? This Karo brand was put on the market in 1903, wasn't it, about that time?

A. I couldn't recall the ancient history of it. I know we have handled it steadily.

Q. By wholesale entirely?

A. Yes sir.

Q. You sell where?

A. We sell here in the city and immediate neighborhood. Entirely within the state.

Q. And you buy from out of the state?

A. We buy from the manufacturers.

Q. And it is shipped to you from Davenport?

A. It is shipped to us from Davenport.

Q. Iowa?

201 Q. Yes sir.

Q. You said that since this law of 1907 went into effect you had sold it under another name?

A. We haven't sold Karo under any other name.

Q. You haven't sold Karo under any other name?

A. No. We may have sold a similar product.

Q. From whom—bought from whom?

A. Bought from the Corn Products Company, and from others.

Q. And so dealt in by wholesale?

A. Yes sir.

Q. You mean a fancy name, a different name from Karo?

A. A different name than Karo.

Q. Did you buy it under the name of glucose?

A. Yes sir, "Glucose flavored with refiners' syrup".

Q. Did you give orders as to how it should be labeled?

A. We did.

Q. Gave special orders as to how it should be labeled?

A. We did.

Q. To the Corn Products Company?

A. To the Corn Products Company and others.

Q. That is, any that you have dealt in under any other name than under the name of "Glucose flavored with refiners' syrup was labeled by your orders?

A. Yes sir.

Q. And special request?

A. Yes sir.

Q. Is it stated on the label that it was specially prepared for your firm?

A. I think it does. I am not positive, but I think it does.

Q. Are you able to recall how long you have dealt in corn syrup?

A. I would have to go back of our beginning here.

Q. You would have to go back of your beginning here?

202 A. Yes sir.

Q. You mean that it was on the market as corn syrup when you commenced business here?

A. It was on the market as syrup. I wouldn't say that it was on the market as corn syrup, because I don't remember.

Q. You don't remember when you first knew of it as corn syrup?

A. No sir, I don't remember the date.

Q. Was it before the Karo brand came out?

A. Do I remember when the corn syrup was known as corn syrup?

A. Yes.

Q. Are you trying to find the—I don't quite understand your question, Mr. Fairchild.

Q. I say, did you know of it as corn syrup before the Karo brand of it came out?

A. I don't think I did.

Q. Did you know of the Kairomel brand?

A. No sir.

Q. You have never known but one brand of it then?

A. I have known the Golden Glory brand.

Q. Do you know whether that brand came out before or after the Karo brand?

A. I know that we sold that brand before we sold the Karo.

Q. And as corn syrup?

A. As corn syrup.

Q. And you began to sell Karo as soon as it came out, didn't you?

A. I can't tell you.

Q. That is, as soon as it was put on the market?

A. As soon as it was put on this market, we began to sell it.

Q. I call your attention to Exhibit 28. Is that the brand? Just look at that.

A. Golden Glory is the brand. Now whether this brand was first put on the market——

203 Q. I would ask you if that is the brand?

A. That is the brand.

Q. Who did you order from when you first took Karo?

A. The Corn Products people under their former name.

Q. What was the name then?

A. I think they were the Glucose Refinery Company.

Q. That may have been a predecessor of this company, may it not? instead of being the same company?

A. I presume it was.

Q. Can you tell how far back it was when this commodity was not known as corn syrup in your dealing?

A. I couldn't give you any exact date.

Q. You used to sell syrup under different brands, didn't you?

A. Yes sir.

Q. Just as fancy brands of syrup?

A. Yes sir.

Q. Different brands?

A. Different names.

Q. And you got them from different places, different companies?

A. Yes sir.

Q. Was it this same article?

A. I think it was. It had the same taste and the same appearance.

Q. Did you get it from the same parties?

A. Yes sir.

Redirect examination by Mr. OLIN:

Q. You answered in answer to questions put by counsel that you had been purchasing glucose mixtures from the Corn Products Company labeled as such, but labeled as such at your request specially?

A. Yes sir.

Q. How did that happen to occur, why did you make any such request?

A. In order to have the label comply with our interpretation of the law of the state.

204 Q. You had examined that subject, had you, and concluded that the law required it?

Mr. FAIRCHILD: I object to that.

Objection sustained.

Q. And they have been selling you articles of that kind labeled "Glucose mixed with refiners' syrup" or "flavored with refiners' syrup"?

A. They have?

Q. And you have been selling that to the public or to the retail dealers?

A. Yes sir.

Q. You were asked also something about the Golden Glory brand. Is that a brand that is still being put up by the company?

A. I believe it is.

Q. At the present time?

A. I think so. I see it in the stores.

Q. I show you a can marked for identification Exhibit 37 and ask you to look at it and state whether that article or an article thus branded is being put on the market now?

A. This brand of syrup, I can't say whether the wording is identical, I haven't examined it closely, is on the retailers' shelves at the present time. That would be my answer to the question.

Q. Here in this city?

A. Yes sir.

Q. Do you recall, Mr. Blackburn, the fact that in 1905 there was a so-called food law passed in this state, two years before this legislation of 1907?

A. Yes sir.

Q. I call your attention to that fact simply to fix in your mind the date. Do you recall now whether you were selling here in this city any of these glucose mixtures prior to the enactment of 1905 as corn syrup?

205 A. No sir, we were not selling them as corn syrup—I think not.

Q. But after that act was passed you did sell them as corn syrup, did you not?

A. Yes sir.

Q. And until the legislation of 1907 you continued to sell as corn syrup?

A. As corn syrup.

Q. Among other brands?

A. Yes sir.

Recross-examination by Mr. FAIRCHILD:

Q. Did you sell these syrups prior to 1905?

A. We did.

Q. Didn't you sell Karo Corn Syrup prior to 1905?

A. I think so.

Q. Karo Corn Syrup?

A. We sold Karo, whatever brand it had on it.

Q. Well, did you ever see a can of Karo that hadn't the words corn syrup on it, Karo Corn Syrup?

A. Not that I can recollect. I understood Mr. Olin's question to be these syrups, to include all of the different syrups.

Q. Well, your answer included them all and that answer included Karo.

A. Well, we sold Karo however it was branded.

Q. Well, just look at that can right before you.

A. The label looks about the same as it always does.

Q. I show you Exhibit C and ask you to look at that carefully, and state if that isn't the label under which you have always sold that article.

A. As near as I can recall it is, but I don't recollect all the wording.

Q. But it has all the appearance of the label you have always sold it under.

206 A. The label looks familiar.

Q. As the one that you sold this article under as soon as it came onto the market?

A. As soon as it came onto this market. It may have been in other markets before.

Q. Can you tell approximately when this came onto this market?

A. I could not without going to the books to find when we first bought it, but I should say that it was at least five years.

Redirect examination by Mr. OLIN:

Q. That's your best recollection now, and this is the latter part of 1908?

A. Yes sir. I should say that we have been handling it five years, if not longer.

Q. That would make it then about the year before the legislation of 1905?

A. Yes, two years.

207 FRED BODENSTEIN, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Bodenstein, you live here in the city?

A. Yes sir.

Q. And your business is retail grocer?

A. Yes sir.

Q. Are you familiar with what is called corn syrup?

A. Yes sir.

Q. As such grocer you have sold some of that article?

A. Yes sir.

Q. And you purchase it from whom?

A. Some times from Gould, Wells & Blackburn, some times out of the city.

Q. And when you purchase it you purchase it to sell it as a retailer?

A. Yes sir.

Q. When you purchase it from these others, you purchase it from wholesalers?

A. Yes sir.

Q. Now, the wholesaler sells it to you in what form of a package?

A. In wooden cases, different packages.

Q. Does he sell it to you in separate cans, such as you see it here on the table?

A. No sir.

Q. You don't buy it that way?

A. No sir.

Q. Do you buy it in cases similar to what I show you now that has been marked here as Exhibit 36?

A. Yes sir.

Q. And was it branded that way?

A. I believe so.

208 Q. That you purchased from this particular company I mean?

A. Yes sir.

Q. The individual cans that you buy, are they addressed to any particular person?

A. No sir.

Q. They are taken out and put on your shelves and sold separately?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. You buy, you stated, from Mr. Blackburn and other parties?

A. Yes sir.

Q. Other parties where?

A. Chicago.

Q. What concern do you buy from in Chicago?

A. Just lately Sprague, Warner & Company and Reid-Murdock.

Q. This Karo Brand.

A. Why, yes.

Q. How long have you been dealing in that Karo brand?

A. Ever since it was put upon the market.

Q. Do you know about how long that was?

A. Why, no, I don't remember just how long.

Q. Well, approximately?

A. Five years ago.

Q. Do you deal in it quite extensively?

A. Yes sir.

Q. As much or more than you do any other syrup?

A. As much. We supply the demand.

Q. Is there a demand for Karo Corn Syrup?

A. Yes sir.

Q. Called for as such?

A. Yes sir.

Q. During all that time?

A. Yes sir.

209 Redirect examination by Mr. OLIN:

Q. You spoke of buying from other concerns since the law of 1907 was enacted. Did you buy that under the name of corn syrup from other parties, or glucose mixtures?

A. Since 1907 I don't believe I bought outside of Gould, Wells & Blackburn.

H. N. McKINNEY, being first duly sworn as a witness on the part of the defendant testified as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. McKinney where do you live?

A. Philadelphia.

Q. What is your business?

A. Advertising.

Q. How long have you been in that business?

A. Thirty-three years.

Q. Advertising in what way?

A. Newspapers, magazines, billboards, street cars.

Q. For any particular class of business?

A. No sir, all classes.

Q. Have you had anything to do with the matter of advertising a commodity called Karo Corn Syrup?

A. Yes sir.

Q. When did you first begin advertising Karo Corn Syrup?

A. 1903.

Q. Where?

A. You mean in what section of the country?

Q. Yes sir.

Q. Fifteen or twenty states, as I remember it.

Q. In the East or West or both?

210 A. Both. In the West locally; in the East in the national publication.

Q. In Wisconsin?

A. Yes sir.

Q. You began in 1903 in Wisconsin?

A. Yes sir.

Q. To advertise in what particular manner?

A. In the newspapers.

Q. Dailies as well as weeklies?

A. Yes sir.

Q. In different nationalities?

A. Yes sir.

Q. Can you give us the names of the papers and the cities and towns in which they were located in which you advertised this article in 1903?

A. In Wisconsin?

Q. Yes.

A. Yes sir.

Q. Please give us the names?

A. The Democrat of De Pere, a weekly; The Gazette, daily, of Green Bay; the Northwestern Mail, weekly, of Madison; Pioneer, semi-weekly, of Mayville; Evening Telegram, daily, of West Superior; Leader, of Eau Claire; Commonwealth, daily, Fond du Lac; Reporter, daily, of Fond du Lac; Witness, weekly, of Plattsville; Chronicle, weekly, of Dodgeville; Union, weekly, Fort Atkinson; Chronicle, daily, of La Crosse; News, daily, of Milwaukee; Sentinel, daily, of Milwaukee; Evening Crescent, daily, of Appleton; Post,

daily of Appleton; Journal, daily, of Racine; Enterprise, weekly, of Evansville; Journal, daily of Sheboygan; Century, weekly, of Viroqua; Press, daily, of Ashland; Journal, weekly, of Platteville; Wisconsin, daily, of Milwaukee.

Q. That is, the Evening Wisconsin?

211 A. Evening Wisconsin, daily, of Milwaukee; Recorder, daily, of Janesville; Independent, weekly, of Elkhorn; Evening Press, daily, of Menasha; Northwestern, daily, of Oshkosh; Times, daily, of Oshkosh; Independent, daily, of Chippewa Falls; State Register, weekly, of Portage; Banner, weekly, of Jefferson; Republican, weekly, of Antigo; Tomahawk, weekly, of Tomahawk; Times, daily, of Racine; Telegram, daily, of Sheboygan; Enterprise, weekly, of Oconomowoc; Herald, daily, of Chippewa Falls; Tobacco Reporter, weekly, of Edgerton; Democrat, daily, of Madison; Leader Press, daily, of La Crosse; Record, daily, of Wausau; Gazette, daily, of Janesville; Deutsch Pioneer, German, semi-weekly, Wausau; News, daily, of Beloit; Freeman, weekly, of Waukesha; Herald, German, daily, of Milwaukee; Times, daily, of Neenah.

Q. For how long did these advertisements run in these papers during the season of 1903?

A. They ran about ten months.

Q. Were these advertisements accompanied with drawings or pictures of any kind?

A. Yes, sir.

Q. Have you those with you?

A. Yes sir.

Q. Will you please produce them?

A. I have a file of the advertisements, both national and local, from the very beginning.

Q. This is your office file, is it?

A. That is our office file and I very much want it back.

Q. Could you leave it here for some time?

A. Yes sir.

Q. If you have the assurance of getting it back later on?

A. Yes sir. It is a complete record of all the advertisements from 1903 to now, including those that are running at this time.

212 Q. Did you have a different advertisement for the dailies and the weeklies?

A. Yes sir, and different advertisements for the national publications.

Q. Look at your file and point out to us, if you will, the advertisements in the form in which they were published in the newspaper in Wisconsin that you have named?

A. It begins there where it is written on the page "Daily and Weekly Copy, 1903".

Q. And continues?

A. It continues to that advertisement that is marked number 21 at the top.

Q. I will call your attention to Exhibit- 38 to 65 inclusive and ask you if those are the advertisements which you run in these papers that you have named?

A. They were.

Q. During 1903?

A. During 1903 and into 1904.

Q. I noticed quite a number of German advertisements. Those were carried in the German papers referred to in your testimony.

A. Yes sir. They are the same advertisements, as the English ones, only translated into German.

Q. Are you able to tell us how many issues per week all these advertisements appeared in the papers you have named in Wisconsin?

A. Not per week. I estimated that there were over 100,000 each issue of daily papers every day, some times three times a week; most of the dailies three times a week.

Q. Each issue?

A. Yes sir.

Q. You don't mean to say that it appeared in every issue of each paper?

A. In a weekly once a week, in most of the dailies three times a week, and in a few cases every day. Most of the dailies three times a week.

Q. What do you mean by saying each issue?

A. I mean that the circulation—we figure that the circulation of these papers is over 100,000 copies for every issue they print.

Q. You mean on a particular day?

A. Yes, taking the aggregate of the forty-eight papers.

Q. Well, how often would an advertisement appear?

A. In a daily three times a week if it was every other day, or six times if every day.

Q. Can you give us approximately the total number of appearances during the ten months in these different papers?

A. Ten months would be forty-three weeks, it would be at least one hundred thousand times forty-three, with the addition of whatever additional insertions there were in the daily papers of the week. I can't say from memory the circulation of each daily paper, so that I couldn't give an aggregate without knowing that in detail.

Q. You wouldn't be able to state the number of times that these advertisements appeared during the ten months in all these papers?

A. It was over four million on the face of it, it couldn't have been less than that, and as much more as the added insertions per week made it.

Q. Now, were these same advertisements carried throughout the different states?

A. Yes sir.

Q. In the same form?

A. The same, with such slight variations as you see in the Boston papers where a special advertisement is put in, if it is a particularly expensive paper or for some particular reason. The matter is the same practically.

Q. Calling your attention to Exhibits 66 to 70 inclusive, I will ask you if those advertisements appeared in any newspapers, and if so, where?

A. They appeared in the Boston, Mass. daily, Globe and Herald.

Q. Running for how long—that was during 1903?

A. 1903 into 1904.

Q. Were those in daily papers?

A. Yes sir.

Q. And appearing daily?

A. No sir.

Q. How often?

A. Probably three times a week, but possibly only twice a week in those two papers.

Q. Now, I will ask you in what publication of a general circulation and also circulating in particular localities extensively other advertisements appeared during that year 1903?

A. The Ladies Home Journal, monthly, Philadelphia; Saturday Evening Post, weekly, Philadelphia; Collier's Weekly, New York; Young People's Weekly, Elgin, Illinois; Housekeeper, monthly, Minneapolis; Sunday School Times, weekly, Philadelphia; Delin-eator, monthly, New York City; Cosmopolitan, monthly, New York City; Munsey's Magazine, monthly, New York City; Frank Leslie's Popular Monthly, monthly, New York City; Scribner's Magazine, monthly, New York City; Review of Reviews, monthly, New York City; Strand Magazine, monthly, New York City; Good Housekeep-ing, monthly, Springfield, Massachusetts; Christian Herald, weekly, New York City; Christian Endeavor World, weekly, Boston, Massa-chusetts; Woman's Home Companion, monthly, Springfield, Ohio; American Boy, monthly, Detroit; Christian Advocate, weekly, Bos-ton, Mass.; Central Christian Advocate, weekly, Kansas City, Mis-souri; Western Christian Advocate, weekly, Cincinnati; Epworth Herald, weekly, Chicago; Christian Advocate, weekly, New York; Observer, weekly, New York; New Metropolitan, monthly, 215 New York; Everybody's Magazine, monthly, New York; Outlook, weekly, New York; Success, monthly, New York; What to Eat, monthly, Chicago; Presbyterian, weekly, Philadelphia; Lutheran Observer, weekly, Philadelphia; Lutheran Standard, weekly, Philadelphia; Baptist Commonwealth, weekly, Philadelphia; Lutheran, weekly, Philadelphia; Christian Instructor, weekly, Phila-delphia; Episcopal Recorded, weekly, Philadelphia; Four Track News, monthly, New York. And then in addition to that I have the daily papers of New York and Brooklyn. I don't think that would come under that head.

Q. Were those of general circulation?

A. Yes sir, national circulation.

Q. And then you spoke about others, you have some others.

A. New York City dailies.

Q. And Chicago city dailies?

A. New York City. On this list I have simply the Sunday papers in Chicago. The Chicago daily papers were used.

Q. That is, the American, News, Record Herald, Tribune and Post?

A. I don't remember whether the American.

Q. Have you a list of these there?

A. No, I haven't a detailed list of those papers. They come under the head of local papers. I have each state. That you see is simply the Sunday issue.

Q. The Sunday issue?

A. There is only one Chicago paper there, the Record Herald.

Q. I will ask you if you inserted it in the large daily papers?

A. In Brooklyn, Chicago, New York, Philadelphia, Pittsburg, St. Louis.

Q. Now, I will ask you to point out in this record that you have brought here the advertisements that appeared in these different papers of national circulation, referring to Exhibit 71, 72, 73 and

74—will you state in what papers those appeared?
216 A. Those appeared in the papers of national circulation.

Q. In all those of national circulation that you have named in that list?

A. Yes sir. The same advertisement did not appear in all of the papers. We made different advertisements for the different papers.

Q. Now, referring to Exhibits 75, 76, 77 and 78, will you state in what papers those advertisements appeared?

A. The papers of National circulation.

Q. Out of the list that you gave us?

A. Yes sir.

Q. Now, 79 and 80, will you state in what papers they appeared?

A. 79 appeared in the Sunday School Times and number 80 appeared in Success, published monthly in New York.

Q. That is a magazine?

A. Yes sir.

Q. Referring to Exhibits 81 and 82, in what papers did those appear?

A. 81 appeared in Collier's Weekly of December 1903, and 82 appeared in the Western Christian Advocate, weekly, published in Cincinnati.

Q. For how long did those appear?

A. One insertion.

Q. In each case?

A. In each case, yes sir. They were full pages.

Q. Calling your attention to Exhibits 83 and 84, I will ask you in what papers those appeared?

A. 83 appeared in the Ladies Home Journal, monthly, Philadelphia, and 84 appeared in the Young People's Weekly of Elgin, Illinois.

Q. How many issues?

A. One insertion.

217 Q. That is a paper of national circulation?

A. Yes sir.

Q. Well were those full-page advertisements?

A. Yes sir.

Q. Referring to Exhibits 85 and 86, in what papers did those appear?

A. 85 appeared in the Christian Endeavor World, published in Boston weekly. 86 appeared in the Woman's Home Companion, published monthly in Springfield, Ohio.

Q. Are those full page advertisements?

A. Yes sir, full page.

Q. How many insertions?

A. One insertion.

Q. I call your attention to Exhibits 87 to 90 inclusive and ask in what papers those appeared?

A. Number 87 appeared one time in the Christian Advocate, weekly, of New York. 88 one time in the Central Christian Advocate, weekly, of St. Louis, and now at Kansas City. 89 appeared one time in the Epworth Herald of Chicago.

Q. Exhibit 90?

A. One time in the American Boy, monthly, of Detroit.

Q. Calling your attention to Exhibits 91, 92, 93 and 94, I will ask in what papers those appeared?

A. 91, 93, 94 and 95 appeared in the general list of national publications. 92 appeared one time in the Christian Herald, weekly, of New York City.

Q. When you say national publications, how long did those run?

A. They ran for the same length of time as the other, ten months, but varying sized advertisements.

Q. Number 97?

A. Number 97 was a full page advertisement in the Youth's Companion, weekly, Boston.

218 Q. One insertion?

A. Washington's birthday number of 1904.

Q. Calling your attention to numbers 98 and 99, I will ask you in what papers those appeared?

A. 98 and 99 were part of the series of advertisements for the national publications.

Q. During the year 1904?

A. 1903 and 1904.

Q. Calling your attention to Exhibits 100 to 104 inclusive, I will ask you in what they appeared?

A. Number 100 was a full page advertisement in Collier's Weekly, issue of April 2, 1904. 101 a full page issue in Delineator, a monthly, of New York, issue of December, 1903. 102, full page in Cosmopolitan, monthly, of New York.

Q. What date?

A. I haven't the date of that.

A. What year.

A. Well, it was probably December of 1903. It comes right in with the December, 1903, magazines. It is about that time anyhow. Exhibit 103, a full page in the Sunday associated magazines.

Q. What is that?

A. That's a combination, the Boston Post, the New York Tribune, the Philadelphia Press, the Chicago Record Herald, Pittsburgh Post, and the St. Louis Republic. They all use that magazine in their Sunday issue of the paper.

Q. It appeared in all of those?

A. It appeared in all of those.

Q. Have you the date?

A. I haven't the date of that.

219 Q. When would that be, some time in 1903, late in 1903, or early in 1904?

A. Yes. 104, full page that appeared in Good Housekeeping, if I remember rightly. That was the first advertisement that was put out, April, 1903.

Q. Referring to Exhibit number 105, I will ask you in what papers that advertisement appeared?

A. That is one of the regular daily papers. It is a series of daily papers all over the country. That is the last of 1903 and 1904.

Q. What is the date of that?

A. I haven't the date of that. That is one of those series that ran through the ten months.

Q. Can you tell us approximately, Mr. McKinney, what was the circulation of these national publications as you have given them?

A. Not less than twelve million each issue, probably a good deal more.

Q. In connection with your advertising in the newspapers in Wisconsin, did you advertise in any other way?

A. Not in 1903 and 1904.

Q. Did you begin another series of advertisements later on, say in 1906?

A. In 1907.

Q. Well, did it begin earlier than that?

A. No. You mean in Wisconsin?

Q. Yes.

Q. No. 1906 in Pennsylvania.

Q. Well, in 1907 and 1908 was this campaign of advertising continued?

A. Yes sir.

Q. In the same way and in the same papers?

A. No—

Q. I hardly think that is a fact.

220 A. It was not in the same papers.

Q. Have you a list of the papers?

A. Yes sir. Do you refer now to the whole country, or only to Wisconsin?

Q. To Wisconsin.

A. In 1907 we used both newspapers and billboards in Wisconsin.

Mr. OLIN: I wish you would fix the date when you commenced that in Wisconsin.

A. In the fall.

Mr. OLIN: After the 1907 law was passed?

A. In the fall of 1907.

Mr. FAIRCHILD: I don't believe myself that that's competent proof.

Mr. OLIN: If the court lets any of it in, I have no objection to the other.

(Recess of ten minutes.)

Mr. FAIRCHILD: In view of the fact that Brother Olin went into the question of how this article had been sold since the passage of this law of 1907 here in the city, went into it against my objection, I think for that reason that these advertisements and the continued campaign advertising of this article are material, so I will continue them.

Mr. OLIN: I don't object to your continuing them, but I don't quite like the reason you give for it.

Court: That testimony may be received subject to the objection.

Q. I show you Exhibits 106 to 116 inclusive and ask you if those appeared in any newspapers and where and when?

A. They were a part of the regular series of advertisements run all over the United States and in Wisconsin as well as a part of the campaign.

221 Q. During what year?

A. 1907 and early 1908.

Q. Did those appear in the local as well as the national publications?

A. Appeared only in what we term local—daily and weekly.

Q. Have you the papers in Wisconsin in which these advertisements appeared?

A. Yes sir.

Q. Now, without burdening the record of going over the names, I will ask you how many newspapers in Wisconsin these advertisements appeared in and whether they were selected from different localities in the state—prominent publications?

A. Yes sir, there were ninety dailies and weeklies scattered all over the state; intended to cover the state.

Q. You selected them yourself?

A. Yes sir.

Q. With special reference to making the advertisement as public and conspicuous as possible?

A. Yes sir, and cover the state as thoroughly as possible; the same as we did the other states.

Q. These continued for how long?

A. About six months, between six and seven months.

Q. And these same advertisements you saw appear in the local publications in other states?

A. Yes sir.

Q. In how many states of the Union?

A. I can't answer that definitely, but about twenty as I remember it. Oh, I can answer it. Illinois, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, Pennsylvania, Wisconsin, Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont.

Q. How many in all there?

222 A. Sixteen.

Q. Was your advertising as extensive there proportionate to the size of the state as in Wisconsin?

A. Yes sir. There were 1429 papers in the sixteen states—local papers. Ninety of them were in Wisconsin.

Q. Can you give us approximately the total number of issues in Wisconsin of these advertisements during those six months?

A. I figured up somewhat carefully and they will average I am sure 180,000.

Q. For each issue?

A. For each issue.

Q. Can you give us approximately the aggregate number in all the issues?

A. Thirty times 180,000 would be about it, 5,400,000 wouldn't it? That was an under-estimate.

Q. Did your national publications continue this same advertisement?

A. Not so extensively. We used more local papers and less national papers.

Q. But you did use a considerable number of the nationals?

A. Only the Ladies' Home Journal, Delineator, Woman's Home Companion and Good Housekeeping, if I remember rightly.

Q. These national publications that you selected for the year 1903, are they publications extensively circulated throughout the United States?

A. Yes sir. The Ladies' Home Journal has a million and a quarter, the Saturday Evening Post over eleven hundred thousand each issue, scattered over the United States.

Q. Were these selected with reference to the circulation of the publications?

A. Yes sir.

Q. I will call your attention to Exhibits 116 to 129 inclusive and ask you whether those advertisements appeared in the Wisconsin papers?

A. They did. They are a part of the regular series that appeared all over the country.

Q. And for the six months that you referred to?

A. Yes sir.

Q. During the year 1907 was there any billboard advertising?

A. Yes sir.

Q. In Wisconsin, I mean?

A. Yes sir, we used 1192 billboards.

Q. What are the size of these billboards approximately and what do they contain?

A. An eight sheet poster, what we call an eight sheet poster. That is about 9 x 10 approximately; I haven't measured it. It is what is known regularly as an eight sheet poster.

Q. About ten feet?

A. About that.

Q. Where were they put up?

A. In all of the towns and cities of Wisconsin that had a regular billboard service.

Q. Did you have a specified length of time?

A. Yes, they were up two periods of four weeks each.

Mr. OLIN: Give the date?

A. I can't give the date.

Mr. OLIN: Can you give the first date?

A. No, I can not, but in all probability it was October. It might have been September.

Q. What did these billboards contain as to the material of the advertisement?

A. There was very little wording on them. They contained a large cut or picture of the can itself with the wording as it is
224 on the can.

Q. Such as this Exhibit C.

A. An exact facsimile of the can. Then some phrase. On some of them I remember we used the phrase "Best spread for daily bread".

Mr. OLIN: You used "corn" didn't you?

A. I don't recall any corn on the poster, but yet, there may have been, but I think not. I think we tried to show the can in its original color so that the consumer would know it when she saw it.

Q. The can and the lettering on the can had a prominent part in the poster?

A. I think every poster had a facsimile of the can.

Q. A large size facsimile?

A. Yes sir. The can was the largest thing on the poster in some of them. In others there was some other picture and the can was smaller, but if I remember, each poster had a reproduction of the can in color and all.

Q. Now, all this advertising was done for whom?

A. For the Corn Products Company, Corn Products Refining Company.

Q. Did you carry on the same campaign of advertising in the year 1908?

A. Yes sir.

Q. In Wisconsin?

A. Yes sir.

Q. And in the nation?

A. Yes sir.

Q. And as extensive or more extensive?

A. More extensive. In 1908 we advertised in street cars.

Q. You used advertising space in the street cars?

A. Yes sir.

Q. In Wisconsin?

A. Yes sir.

225 Q. On all the lines in Wisconsin?

A. Practically. I wouldn't say every line. There were 623 street cars used.

Q. Did you have anything to do with the preparation of this Karo brand?

A. Yes sir.

Q. Were you the originator of it?

A. Yes sir.

Q. With that trade mark?

A. Yes sir.

Q. Can you give us the date when it was trade-marked?

A. No, I cannot. It would either be 1902 or 1903 I think.

Q. At whose instance was that?

A. The getting up of the name?

Q. Yes.

A. Why, Mr. Matheson's, I suppose.

Q. I mean what company?

A. Oh, the Corn Products.

Q. Did you secure this trade mark yourself, do you remember?

A. I think not.

Q. Well, it was just the word Karo, was it?

A. Yes sir.

Q. As a designation of a syrup?

A. Yes sir.

Mr. OLIN: Well, have you got it there?

Mr. FAIRCHILD: Yes. I can put it right in now in connection with his testimony, if it is necessary.

Mr. OLIN: We object to it as immaterial and irrelevant.

COURT: Objection overruled. Received in evidence. Marked Exhibit 130, hereunto attached and made a part hereof.

Mr. FAIRCHILD: I offer in evidence these various Exhibits 226 which I have called to the attention of the witness, and I offer them separately so that if Brother Olin wishes to object to any of them specifically he may do so.

COURT: You refer to the advertisements contained in the books.

Mr. FAIRCHILD: Yes.

Mr. OLIN: I object first to all the advertisements offered in evidence outside of Wisconsin.

Objection overruled.

Exhibits 38 to 129 inclusive are contained in a book marked on the front cover "Circuit Court, Dane County, Wisconsin, Filed April 17, 1909, Lawrence O. Larsen, Clerk," and on the back "16 Corn Products," and to be treated and considered as a part of this bill of exceptions to the same effect as though included therein and to be returned to the supreme court with such bill of exceptions as a part thereof.

Exhibit 130 is a duly certified copy of the Certificate of Registration, Statement, Declaration and Fac-simile in the matter of the Trade Mark "Karo" registered by the Corn Products Company September 15, 1903, in the Patent Office of the United States of America, at Washington, D. C. September 15, 1903, being certificate No. 41117.

Cross-examination by Mr. OLIN:

Q. Mr. McKinney, you have been following this business of preparing advertisements for how many years?

A. Thirty-three years Monday.

Q. You have worked for various firms or various interests in that line of business during this time?

A. Yes sir. By that you mean we have handled the advertising of other concerns.

Q. Yes.

A. Yes sir.

227 Q. You haven't confined yourself to the Corn Products Company?

A. Not at all.

Q. The first work you did, I understand, was some time in 1903?

A. Yes sir.

Q. Now, can you state how early you commenced advertising for that concern in Wisconsin in 1903?

A. In the fall of 1903.

Q. How late in the fall was it, Mr. McKinney?

A. I think we began the advertising in September. It was everywhere the same time, all over the country.

Q. Is there anything you have with you by which you can fix the exact date for Wisconsin?

228 A. No sir.

Q. You think it was not as late as the fore part of December?

A. No sir. I remember distinctly that it was intended to commence the campaign the middle of August, and it was delayed. I think we began in September, but that is a matter of memory.

Q. What instructions were given to you to guide you in the preparation of these advertisements?

A. None whatever.

Q. Well, none as to the product or article to be advertised?

A. We were given an appropriation to spend in advertising this article, then we studied it on our own account and made up the advertisements as seemed to us best and then submitted them to Chicago for approval.

Q. They were all approved of then by the officers of the company before they were put out?

A. Yes sir.

Q. Your testimony covered practically all of this book that you have, substantially all of it?

A. Yes sir. There are some in there that are not Karo at all, not syrup advertising at all.

Q. No, but so far as——

A. I have covered everything in there that related to corn syrup advertising, with the exception of a few in trade papers.

Q. Would you have any objection to my paging it in lead pencil here for convenience of reference?

A. No objection to doing that, or in ink, it wouldn't hurt it any. I should have done that myself before I came out here.

Q. You say you were employed by this company for this work, you prepared the advertising matter and submitted it to the company, or officials. Was all of the different advertising matter prepared at one time, or Exhibits from 38 to 65 inclusive—that

229 I think you testified went into the Wisconsin papers?

A. I think so.

Q. And submitted at one time?

A. I think so.

Q. Did you know anything about the way this product was manufactured?

A. Practically, no sir.

Q. Had you been informed by the officials?

A. Yes sir.

Q. Prior to your preparation of these advertisements?

A. Yes sir.

Q. You knew it was made from a starch?

A. Yes.

Q. And that that starch was obtained from corn, you understood?

A. Yes sir.

Q. You didn't understand then that it was made from the grain of the corn directly?

A. I understood that it was made from the corn directly in one process right through.

Q. You knew what corn-starch was?

A. When I was first told that I said I couldn't see it that way, they didn't make any starch before they made the syrup.

Q. Did you convince them?

A. I convinced them that syrup was the right word to use.

Q. Are you a food chemist?

A. No sir. I look to the housekeeper for my information, not to the chemist.

Q. You hadn't heard of glucose before this?

A. Not definitely until we got this concern.

Q. You never knew anything about the production of glucose?

A. No, I thought like everybody else that it was some nasty thing made out of dangerous articles.

230 Q. You thought that it was some nasty thing?

A. Yes sir.

Q. Well, is that what you expressed to these officials?

A. Yes sir.

Q. Did you convince them of that?

A. They agreed with me that it wasn't a good thing to misrepresent it, to advertise it as glucose.

Q. You haven't heard, had you, that the predecessor of this company was named as a Glucose Refining Company?

A. The Chicago Glucose Company when I first began to do the advertising.

Q. Its name at that time was Glucose Company?

A. Yes.

Q. Well, did you advise them that that was a sort of a nasty name; and that they had better get rid of it?

A. I did that a good many times.

Q. Well, had you any particular interest in the business?

A. Not at all.

Q. You just wanted a free opportunity for your advertising?

A. I wanted some product that could be advertised successfully.

Q. You wanted to succeed along that line in your business naturally?

A. Yes sir.

Q. And you wanted to do it in a way that you thought would catch the public best, take their fancy?

A. Catch them after they used it a long while.

Q. That it would take their fancy—that was a fact, wasn't it?

A. Yes sir.

Q. And you thought that glucose wasn't a good term to use?

A. Very sure of it.

Q. And that is the reason you advised against using it?

A. Yes.

231 Q. You think until that time that the term corn syrup hadn't been used by the company?

A. Oh, it had been used.

Q. Then that had been determined on before you had been employed?

A. They were using it on the cans then, "corn syrup".

Q. So you didn't devise that name for them?

A. Not corn syrup, no sir. It came up for discussion in putting this new product on the market as to what we should call it.

Q. Why do you speak of this as a new product. This was in 1903 and they had been selling the product, hadn't they, before that.

A. They had been selling a syrup and I asked them to put out an article that was better than anything they had put out, put it out under a trade mark, advertise it on its merits and get every new thing about it that was possible to get.

Q. Well, they had been making that article, as you understood, before?

A. They had been making that article before, but not the same—

Q. Well, a good article?

A. Yes sir.

Q. The quality of it was all right?

A. Yes sir.

Q. You didn't mean by what you said that you were going to have them improve the quality of the article?

A. If it was possible to do it.

Q. But you had no complaint to make of the quality of the article that they had already been making?

A. I knew nothing about that.

Q. Well, you had no reason to suppose that it wasn't a good article?

A. No.

Q. And they had been selling it under the name of corn syrup, as you understood?

232 A. Yes.

Q. And also under other names?

A. I don't know about the other names. I learned more about that here than I ever knew before.

Q. Now, the exhibits that began with 38 run continuously from page 13, as I have paged it, down to and including Exhibit 54 on page 29. Then where did that list of Exhibits go to that ran from 38 to 65 inclusive? Just locate these by pages.

A. It goes from page 36 to 46, but that is really a repetition of the others, simply being the German translations of the preceding advertisements.

Q. That is, you begin again on page 36 of the book with Exhibit 58, as I understand you?

A. Yes sir.

Q. And you then run to 65 inclusive on page 46?

A. Yes sir.

Q. And those last exhibits from 58 to 65 inclusive are the same as from 38 to 54 inclusive, excepting they are translated into German?

A. I think so. There may have been some change of design. One is the German set and the other is the English set.

Q. I see in your advertisement on page 14, being Exhibit 39, you speak of this as a "Golden Syrup".

A. Yes sir.

Q. That is a term you used frequently in these advertisements?

A. Yes sir.

Q. On page 15, Exhibit 40, you speak of this as a "Delicious table delicacy with all the goodness of the grain retained". At the same time I understood it was made from starch?

A. Not in the sense in which you put it.

Q. Well, from starch?

A. I understood just what was there.

233 Q. Did you understand that you would get exactly the same article if it had been made from the starch produced from potatoes?

A. No, I did not.

Q. Had you understood that, Mr. McKinney, would you have advertised it or recommended advertising it in this way?

A. Yes sir.

Q. So that don't change—

A. Not at all.

Q. Although you would get the same article exactly if you made it from the starch of potatoes?

A. I should then have insisted that they advertise it as "potato syrup".

Q. It wouldn't have had in that case, would it, any of the flavor or quality belonging to the grain corn?

A. No sir. I should say then that it had the quality and flavor of potato.

Q. Does it have either the quality or flavor of either the potato or the corn, as you understood at the time?

A. Well, I thought so.

Q. Well, thinking that it had the quality and flavor of the corn, you recommended advertising it that way?

A. Yes sir.

Q. You wouldn't have done it if you had known otherwise?

A. I would do it today, for I still have the same opinion.

Q. If it didn't have the quality and flavor of the grain corn?

A. If I knew that it didn't, was convinced that it didn't, I wouldn't surely.

Q. You wouldn't think that that was a fair way of advertising?

A. No, if it wasn't so.

Q. Well, if it didn't have any of the quality or flavor of the grain corn, you wouldn't consider it fair to advertise it in that way to the public?

234 A. I wouldn't consider it so.

Q. You wouldn't have advertised it as you have here in Exhibit 41, which represents two large ears of corn put up in pyramidal form and in which is the advertising matter with the word Karo. Now, if you had known at the time that that article that you were advertising hadn't any of the characteristic flavor or quality of corn or grain, you wouldn't have thought it right to advertise it in that way?

A. No, if I was satisfied that it hadn't, I wouldn't.

Q. You would think that that would be intended to deceive people, wouldn't you?

A. If it wasn't so.

Q. Now, take again as an illustration, Exhibit 43 on page 16, where you have the advertising cut encircled by the stalk of the corn, haven't you and the leaf?

A. Haven't we got the ears of corn as well?

Q. Well may be you have. Do you see any?

A. Yes.

Q. Well, it represents the corn growing on the stalk.

A. Yes sir.

Q. And you have headed it prominently "Essence of the corn".

A. Yes sir.

Q. "Drawn from the strength-giving portion of the kernel and refined to absolute purity". Now, if you had known that this article didn't have any other quality than what it would have had if made from a starch produced from potatoes, you wouldn't have advertised it that way, would you?

A. I think I would, if it came straight from the corn, I certainly would have said so.

Q. If it didn't have any of the quality or flavor or characteristic of the grain corn?

235 A. Yes, if it was made from the grain corn, to my mind that is the proper thing to state, and I couldn't have stated anything else.

Q. Although the article didn't have any of the characteristic flavor or quality of the kernel corn?

Mr. FAIRCHILD: I object to that. What do you mean by "quality of the corn"?

Mr. OLIN: Why I think the witness is an intelligent witness. The flavor of corn.

Mr. FAIRCHILD: I object to that, because it would be impossible to have a syrup with the quality of corn.

COURT: Do you understand the question, Mr. McKinney?

A. Why, my way of putting the question would be, "Did I think that if anything was made from corn, with nothing else, it was correct to call it a corn product?" That is my point of view, that it was made purely from the kernel of corn, and no matter what it might be like it was perfectly proper to call it corn, because it came from

that and from nothing else, and that any quality that was in that, unless some one told me that it was totally destroyed and some foreign matter put into it, I should call it a corn product—not chemically speaking, but as a housekeeper would understand it.

Q. Yes, but if the corn had been subjected to a chemical change which destroyed its characteristic as corn, if that were a fact, then would you say that it would be proper to advertise it as though it were made directly from the kernel of corn?

A. Yes, I would, from the every-day sense of it. You say they are destroyed and that conveys with it of course an impression and a meaning that may be as extended as you choose to put to it. If you have taken a loaf of bread and have ruined that loaf of bread so that it is so longer like bread, I don't think I would be justified in advertising that that was fresh bread; but if you have made bread and it is still bread and you haven't ruined it in any way, I should think I was perfectly right in saying that it was bread.

236 Q. Putting it in a little different way, I think you will understand it, you know what glucose is?

A. Yes sir.

Q. Now, look at the article I hand you, Exhibit number 1. That is mixing glucose I believe.

A. I don't know that.

Q. Well, would you think it a proper thing to advertise that kind of an article as an article "Being drawn from the strength-giving portion of the kernel of corn and having the essence of corn"?

A. Why, I don't think that its form or appearance would be any objection to it whatever.

Q. Not only the form, but the substance itself, as you understand it?

A. If a manufacturer told me that that was made straight from the kernel of corn, no matter by what process, so long as it was not ruined, I wouldn't hesitate to call that a direct essence of the corn. I should think I was truthful in so stating.

Q. In the same sense that you would call sorghum or cane syrup that is manufactured one from sorghum and the other from cane and having the characteristic in each case of the article from which it is made, you would say that it would be proper to call one corn syrup and the other cane syrup?

A. No. You mean sorghum?

A. I mean sorghum syrup and the other cane syrup?

A. Yes.

Q. Now assuming there is no chemical change there and that it has the quality and flavor in the one case of the sorghum and in the other case of the cane, would you say that it would be proper in this case to name an article which you get from the starch as tho it were made directly from the grain and having the quality and characteristic of the grain?

237 A. I shouldn't think it made any difference, if it came from the corn itself, any more than when mother used to give me onion syrup, I never questioned how the onions were made or whether they were spoiled or not.

Q. Now, you understand, don't you, that this article is nothing more nor less than glucose with a percentage of refiners' syrup in it, the articles that we have been dealing with here in this case and that were sold, do you not, Mr. McKinney?

A. Yes sir, except that I don't think for common usage that glucose is the right word.

Q. Yes, you are not a chemist though.

A. No sir. I haven't been able to find a woman that knew what glucose was yet. We made our advertisements to make it plain to them.

Q. You wouldn't think, would you, of advertising number 1 as a "delicious syrup"?

A. I can't tell you. I don't know what it tastes like or looks like, number 1.

Q. You don't know what glucose tastes like?

A. Not that.

Q. Well, assuming it is ordinary glucose made from starch?

A. Now, will you repeat that question?

Q. Assuming that number 1 is ordinary glucose made from starch, you wouldn't think of advertising that would you, as a syrup "drawn from the essence of corn."

A. Yes, on that basis.

Mr. FAIRCHILD: I object to that as immaterial, it does not appear that this was made from starch. It was made from the corn and starch happens to be one of the stages of the process of manufacture, that is all.

Court: The answer may stand.

Exception by defendant.

238 Q. I think you said that you regarded glucose as a nasty, dirty article?

A. No sir. I said that that was the understanding that most people had of it that I knew.

Q. Well, do you think that putting in with it ten or fifteen per cent of refiners' syrup changes it to an excellent syrup?

A. I don't think it was a nasty thing to begin with. I say that was the common understanding of it.

Q. Did you understand that this article was a superior quality of syrup?

A. Yes sir.

Q. Superior to cane syrup or sorghum syrup if made honestly from sorghum or cane? I don't refer now to the adulterations of it. It is a cheaper article, isn't it?

A. Usually, I should say that was purely a matter of taste.

Q. Well, as sold on the market it is regarded as a cheaper article, isn't it?

A. Yes sir. You didn't ask me as to cheapness. Cheaper things are some times better than others.

Q. And as an inferior article in the trade, as you understand it?

A. No sir.

Q. Is it an article that was "superior to any other syrup for making taffy or candy?"

A. Those who have tried it say so. My daughter says it is.

Q. You have had no experience excepting what your daughter tells you?

A. Not in candy making. We use it on the table in our family in preference to the other.

Q. What other?

A. In preference to maple syrup.

Q. Is it furnished to you by the corn products company?

A. No sir, it is bought at a grocery store at the regular price.

239 Q. I show you another advertisement, Exhibit 51 on page

26. The cut has jumped up to three ears, hasn't it?

A. Yes sir.

Q. And in this you speak of it, corn syrup, as "A new delicious table delicacy made from corn with the food value of the grain retained" don't you?

A. Yes sir.

Q. And yet all the time you knew that it was made from starch, didn't you?

A. No, I don't admit that in that way.

Q. You don't admit it?

A. No sir.

Q. Well, it's a fact, isn't it?

A. I wouldn't state so.

Q. You don't state so, do you, because this is starch made from corn first?

A. Well, I never have understood that starch was first made.

Q. Well, if, in substance, without quibbling here at all, this article is made from starch and nothing else, that is, the unmixed article I mean—would you then say what you say here, that it's a "delicious table delicacy made from corn with the food value of the grain retained"?

A. I think so, if I was told that the starch in the first place contained all the food value.

Q. Would you say that it was equally true if the starch had been obtained from potatoes?

A. No sir, I should say then "potato syrup".

Q. Wouldn't you rather think it would be a more correct designation to say it was "starch syrup"?

A. It don't seem so to me.

240 Q. Provided the syrup in neither case, in the case of potatoes had none of the characteristics of the potato, and in the case of starch made from corn that it had none of the characteristics of corn?

A. As I look at it, it should be the name of the product from which it is made.

Q. Although the product from which it is made is starch in each case?

A. No sir, I think it should be the original product.

Q. Then it wouldn't make any difference whether the starch is made from corn or from potatoes?

A. I think it should be "corn" or "potatoes", whichever it is made from.

Q. On page 28, Exhibit 53, you state in the advertisement, do you not, "contains all the goodness of the most nutritive cereal grown".

A. Yes sir, I suppose so. I don't question your reading of it. I will admit all that is printed there, Mr. Olin.

Q. Will you be so kind as to turn to Exhibit 66 for me, Mr. McKinney, Exhibits 66 to 70?

A. Yes sir.

Q. That series begins on page 66, does it not?

A. Yes sir.

Q. No I misled you. I don't mean page 66, but the Exhibit that is marked 66, the one that appeared in the——

A. Sunday School Times.

Q. In the Ladies' Home Journal, etc.?

A. 66 is Sunday School Times.

Q. Did you prepare all of the matter in Exhibit 66?

A. None of it except the advertisement in the lower right-hand corner.

Q. Who got up the rest of it?

A. Mrs. Helen Armstrong.

Q. Is she your co-laborer?

241 A. We sent her some cans of Karo Corn Syrup and asked her to experiment with it and make up some recipes for us and they were so good we published them.

Q. Well, you don't mean she did that as a matter of charity?

A. No sir. She was just the same as the lawyers are. She was paid to investigate.

Q. Or expert advertisers?

A. Yes sir.

Q. Only we don't as to fees expect to compete with them. She makes a business, does she, of preparing things of that kind?

A. No sir, she makes a business of teaching cookery. She is considered an authority on that.

Q. And you got that into the page for the housewife in the Sunday School Times, was it?

A. You will find that in a number of papers right along there.

Q. I think you have advertised, haven't you, in every Christian magazine and paper in the country, about?

A. Oh, no, a very small percentage of them.

Q. I see among others you got into the Chicago American?

A. My religion doesn't run that way.

Q. But your advertising does?

A. When the customers want it.

Q. Well, you have in these various advertisements done about every thing that would be possible with the pictorial art to represent this as a product coming direct from the kernel of the corn, haven't you?

A. That was our direct intention.

Q. That is illustrated very well, isn't it, in the Exhibit on page 48, being Exhibit 80?

A. Yes sir.

Q. Which is set in a frame of ears of corn?

242 A. Yes sir.

Q. And in the right-hand you speak of it as having "all of the strength-giving elements of the grain retained."

A. Yes.

Q. You say "Unlike ordinary syrup, its purity is protected, cleanliness assured, goodness guaranteed, by air-tight friction top tins", and so on. Was that characteristic only of this product?

A. It was a new tin got up especially at that time for this.

Q. Well, did they get it up before they wrote the advertisement?

A. While they were advertising it.

Q. Here is one that seems not to be introduced, that I will show, on page 50.

A. Before you do that shall I tell you the reason I skipped that? Because I can't recall where they are used.

Q. They were used somewhere?

A. Not necessarily. It rather proves that we did not use it. We often do that. The reason I didn't mention them was because I can't locate them and can't remember.

Q. Did you use any similar to it, having this on it, "A golden Syrup made from Golden Grain"?

A. I think you will find that in other advertisements.

Q. Here is another on page 53. I don't find that that is marked as an exhibit. Wasn't that used?

A. I think some of them are in. My recollection of them is that they were killed. I am not sure. I wouldn't say that they were not used, but that is my recollection, and I skipped them on that account.

Q. Do you know the reason why they were killed?

A. No.

Q. Here on 53 and 54 at the top you have got a pictorial representation of what?

243 A. Of a beehive. You will find that in other advertisements.

Q. You say this part of it is to represent a beehive?

A. I think so. Because it was so poor was the reason it was killed.

Q. Isn't it a fact that it was intended to represent a shock of corn?

A. No sir. Don't you see the bees coming out of it? It is a very poor beehive. I fancy that is what killed it.

Q. You say here "The bee will leave the sweetest blossoms for Karo Corn Syrup". Is that your experience?

A. That was reported to us by a California man.

Q. You wouldn't believe that would you?

A. A California bee man reported that he had put a barrel of glucose and that the bees——

Q. You always believe all you hear along that line?

A. Well, that was reported.

Q. You say also "Karo Corn Syrup is equal to honey in flavor and superior to it in purity and nutritive value." That you find there don't you?

A. Yes sir.

Q. Well, was that reported to you from California, or is that something you knew yourself?

A. No sir. That was a result of articles in the "Gleanings of Bee Culture" on the poisons of honey and the difficulty of getting pure honey.

Q. Well, that difficulty of getting pure honey was by reason of the large amount of glucose they found in it?

A. No, that isn't where they used the glucose. That was the trouble.

Q. Oh, you think if they had put the glucose in it would be all right?

A. The trouble with the bees was that they got the poison out of flowers.

244 Q. So it is your opinion that honey had better not be used?

A. If you read a file of Gleanings of Bee Culture at that time you would think that you didn't want to eat any.

Recess until 2 P. M.

2 P. M.

Cross-examination of Mr. McKINNEY resumed:

Q. Mr. McKinney, turning to page 28, Exhibit 53, which is one of the Exhibits introduced in evidence, in that you make this statement, do you not: "Corn syrup is the pure, golden essence of corn with all the nutritive elements so characteristic of this energy-producing, strength-giving cereal retained".

A. Yes.

Q. That's there, isn't it?

A. I judge so.

Q. Well, now have you examined into this to see whether that was so or not?

A. No sir, not further than by inquiry.

Q. Do you know whether or not all the nitrogenous parts of corn are taken out and that none of it is in the starch from which this product is made?

A. I wouldn't know what the nitrogenous parts were. I am not a chemist.

Q. You don't know anything about that?

A. I am not a chemist at all.

Q. Well then, did you get this idea from the officials of this company? I suppose you were informed, weren't you, by them?

A. I didn't write those advertisements personally.

Q. Oh, I thought you did.

245 A. Oh, no, the advertisement was prepared from a general understanding that everything that was in the corn was to be mentioned.

Q. Now, you say at this time that you didn't write these?

A. No sir.

Q. Will you tell me who did?

A. Probably forty different people.

Q. Connected with the company?

A. Yes sir.

Mr. FAIRCHILD: What company?

A. Probably forty different people. We have about that many in that department.

Mr. FAIRCHILD: That is, in your company?

A. In our company.

Q. Are you a corporation?

A. No, sir, a firm.

Q. Well, were the facts upon which the writing was based furnished to you or your employes or firm by the Corn Products Company?

A. Not in detail.

Q. But in general?

A. In general.

Q. And then after it was put into shape it was submitted, as you have already stated?

A. Yes sir.

Q. This on page 31, being Exhibit 66, as I understand, was specially prepared for some Boston papers?

A. Yes sir, and used in them—Boston daily papers.

Q. That contains this, doesn't it: "A new syrup with a new flavor, Karo Corn Syrup, made from the portion of the corn kernel with all the nutritive strength-giving properties of the grain retained". You are familiar with that language, are you?

A. I judge it's correct.

Q. Well now what new flavor do you refer to there?

A. Why, new flavor of that Karo syrup when it was made.

246 Q. Well, did you understand that the flavor came from anything made from the corn?

A. No sir.

Q. Or that it came from something else?

A. It came from the cane.

Q. That is, from whatever was put into the mixture outside of the corn?

A. Partially so.

Q. You didn't understand that the corn or anything that came from the corn gave to the product any flavor?

A. I understood that it did.

Q. Well that was not what you had in mind when you spoke of the cane flavor?

A. No sir.

Q. Do I understand, Mr. McKinney, that you speak of any flavor connected with the article glucose, mixing glucose, used in the manufacture of this product—that there is any flavor to it?

A. It is my recollection as I tasted it I thought it was a flavor.

Q. Well, it is a flavor, if any, that belongs to glucose generally from whatever article it is made?

A. I don't know anything about glucose except as made from corn.

Q. And you don't know whether it would be the same so far as flavor is concerned, whether it was made from corn or from potatoes?

A. I do not.

Q. Well, now if it is the same, if the flavor, whatever you call it, if there is any, is the same, is the same whether it is produced from potatoes, starch of potatoes, or starch of corn, or starch from any other source, then there isn't any characteristic flavor as you understand it in connection with this corn syrup article that is due to the corn?

A. You put a lot of "ifs" in there, but I mean as to others
247 I have never seen anything made from any other product, I don't know what they taste like or the flavor.

Q. If that is true, your answer would be, would it not, that the flavor that you refer to depends entirely upon the mixing syrup that you put in?

A. If that is true, yet my recollection of the glucose, I think there was a flavor to it.

Q. Would you say there is any different flavor to it whether it is manufactured from the starch of corn or the starch of anything else?

A. I have never seen any other.

Q. In Exhibit 68, page 33, you speak of the "essence of corn" and use this language, do you not: "Drawn from the energy and strength-giving portion of the corn kernel".

Mr. FAIRCHILD: Now, your honor, I haven't made any objection to this line of inquiry by Mr. Olin, but I object to it now, any further pursuit of it, as incompetent. The only object in introducing this advertising was simply for the purpose of showing that this article had been extensively advertised as corn syrup.

Court: How is it material to continue the cross-examination of this witness upon matters which he says he does not know about and upon advertisements that are before the court and speak for themselves.

Mr. OLIN: I think that would be the only objection. I was only going to get into the record certain parts of these.

Court: They are all before the court and you are at liberty to call the attention of the court to them, if you desire.

Q. Do you know the occasion of starting in what you called this second campaign or new campaign of advertising this product, in the fall I think you said, either September or October.

A. There was no special occasion. The only reason of the
248 interruption was because of changes in the internal management of the company. It was originally intended to keep it up consecutively. It was simply a continuation of the matter that had been unavoidably postponed.

Q. Are you keeping it up now?

A. Yes sir.

Q. In all of the papers in Wisconsin that you have named?

A. There are some little changes for various reasons.

Q. You added in this state billboards and street cars?

A. We added this year street cars. Last year we added the billboards.

Q. Had you heard before you started on this second campaign of advertising of the enactment of our law here in this state?

A. No sir.

Q. You weren't informed of that?

A. No sir.

Q. Was there any particular person of the Corn Products Company with whom you particularly dealt in this business more than another?

A. Yes sir.

Q. Who was it?

A. It would depend upon what it was. In the beginning the appropriations came from the president, and the report of the details to Mr. Richman, I arranged them with Mr. Reichman. The appropriation came from Mr. Bedford. Wisconsin was never mentioned. It was simply the whole country.

Q. Well, I had reference more to the advertising matter. To whom did you submit this advertising matter before it was put out?

A. In the different years to different people.

Q. Well, take the year- of 1903 and 1904, first the latter part of 1903.

A. The latter part of 1903 and 1904—Mr. Matheson saw them all.

Q. Was he here?

249 A. No, he was then president of the company. He is no longer president. I think Mr. Anderson, who is no longer with the company, perhaps went over them more with me than anybody else, although I am not quite sure. The fact of the matter was just this, that we were employed as experts and the matter was left in our hands practically. We did nothing without submitting it, but the submission was simply that we might not make any palpable errors. We were trusted to manage the campaign.

Q. And to whom did you submit the matter in the campaign of 1907 and 1908?

A. Mr. Reichman in New York.

Q. Has the company an office in New York?

A. Yes sir.

Q. At what number?

A. 26 Broadway.

Redirect examination:

Q. Do you know whether the company to any considerable extent advertised through the medium of the press, locally or generally, this product, before you took hold of the matter?

A. They had not. Do you mean the Karo Corn Syrup?

A. Yes, the Karo Corn Syrup.

A. No, they had not.

Q. You referred to that as a new syrup I think, in answer to some of the questions my friend asked you?

A. Yes sir.

Q. Had that reference to the name that had been used or to the

fact that it was the first time that it had been brought before the public in that way?

A. That and more. It was a new name coined especially for this purpose. It was a new blend, in which they endeavored to get a more attractive blend than they ever had had before. It was
250 a new method of pushing corn syrup.

Q. In the advertising matter you prepared, you understood and attempted to express the idea that this syrup that you were advertising came from corn, did you?

A. Yes sir.

Q. That was your understanding?

A. Yes sir.

Q. The syrup was extracted from the kernel of the corn?

A. Yes sir.

Q. Had you ever yourself made any tests or experiments of any kind to determine whether a syrup taken from corn had a distinctive, characteristic flavor?

Mr. OLIN: Now, are you trying to qualify him as an expert?

Mr. FAIRCHILD: I am simply, in a general way, attempting to meet all of your examination.

Mr. OLIN: Well, I cut it short because the objection was made that he didn't know about this.

Court: He may answer.

A. No sir.

Q. Would you say the same of a syrup made from potato-s?

A. Exactly. I never made a test of any syrup.

Q. Did you at any time understand when you were conducting this advertising that this article that you were advertising as corn syrup was produced from starch as you ordinarily understand that word?

A. No sir.

Q. You stated, I believe, that you supposed that it was manufactured in a continuous process from the kernel of the corn to glucose?

A. Yes.

Q. And then was flavored with some blend of some kind?

251 A. Yes sir.

Q. You understood, did you, at that time that the Corn Products Company was a large purchaser of corn?

A. Yes sir.

Q. From which to make this syrup?

A. I understood they were the largest commercial purchasers of corn in the country.

Recross-examination:

Q. Now, you have stated, Mr. McKinney, that this was a new blend.

A. Yes sir.

Q. Did you know anything about it yourself?

A. Yes sir. That is, I should explain that. A number of experiments were made with different proportions and different qualities and I tasted it and passed my judgment upon the different ones. Perhaps there were fifty of them.

Q. Well, are you an expert on blends?

A. No sir. It wasn't an expert they wanted. They had the; they wanted something from home.

Q. They got you as an expert as to how it would taste in a home?

A. They got me simply because I was interested in the success of it.

Q. Now, the fact is that this was simply putting out this glucose mixture under a new name—that's all it amounted to, wasn't it?

A. No. There was a difference in it. They had put out no such blend as they did at that time.

Q. You know that this mixture was composed of 85% of glucose and 15% of refiners' syrup?

A. I don't know that.

Q. Would it have made it a better or poorer quality if they had made it of 85% glucose and 15% cane syrup?

A. That is what it was.

Q. My first question was as to its being made up of 85% of
252 glucose and 15% of refiners' syrup. Now I ask you if it would be a better or poorer article in your judgment if it were made of 85% glucose and 15% of cane syrup?

A. I don't know.

Q. Then you don't know which is regarded as the better article, cane syrup or refiners' syrup?

A. I do not.

Q. Would it have made a better article in your judgment if made up of 85% of glucose and 15% of maple syrup?

A. It wouldn't in mine.

Q. Well, in your judgment as a man that knows something about articles that are sold on the market to the public generally?

A. No, I think not.

Q. Is maple syrup a higher grade or higher priced article than refiners' syrup or a poorer article than refiners' syrup?

A. I don't know. I would suppose that the best quality of maple syrup—

Q. Well, cane syrup is a more expensive article than refiners' syrup?

A. I suppose it is.

Q. Refiners' syrup, as a matter of fact, is a low grade article?

A. I don't know what it is.

Q. Then you don't even know what that is?

A. No.

Q. Well, if it is regarded as a low grade article, a low grade syrup, and the product here that you speak of as a superior blend is made of 15% of that article and 85% of glucose, would you speak of it as having been anything new or superior in quality as a syrup?

A. I might or might not. That is a matter of taste.

Q. Well, I am not calling for your individual taste, as to
253 whether it would suit your taste better, but giving your judgment in dealing with that article on the market, people generally would regard it as an inferior article as compared with an article made up of 50% or rather 85%, I will take it, of glucose and 15% of maple syrup?

A. I think from practical experience most people would prefer the other.

Q. Well, is that by reason you think of this catchy advertising, that has been done over the country?

A. No sir. The advertising simply introduced it. It must stand on the way the people like it.

Q. Then it is your opinion today that people like better an article made up of 85% of glucose and 15% refiners' syrup than they would if it was made up of maple syrup?

Objected to as improper cross-examination and immaterial.

Objection sustained.

254 C. J. BLAIR, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Blair?

A. Chicago.

Q. What is your business?

A. I am in the printing business, printing labels.

Q. How long have you been in that business?

A. I have been in it about sixteen years. That's as a salesman. I am not a principal.

A. As salesman?

A. Yes sir.

Mr. OLIN: You are not the printer then?

A. No sir, just a seller.

Q. With what concern are you?

A. R. J. Kittredge & Company.

Q. Have you been with that concern the whole time?

A. Oh, no, I have only been with them about six years.

Q. Were you with some one else before that in the same business?

A. Yes sir. With the United States Printing Company of Brooklyn.

Q. Have you ever had anything to do with the printing of labels for the Corn Products Company or Refining Company?

A. Yes sir.

Q. Did these labels relate to corn syrup?

A. Some of them, yes sir. The corn syrup labels began April 28, 1900, the first order for straight corn syrup labels.

Q. Have you with you samples of the labels that you caused to be printed?

A. A good many of them, not all of them. That is the one I refer to (indicating).

Q. That is the first one?

255 A. That is the first corn syrup label, yes sir.

Q. When was the first order placed with you for labels like Exhibit 131?

A. April 28, 1900. That is the Kairomel.

Exhibit 131 hereto attached and made a part hereof.

Q. State whether you continued the printing of those labels down to July 13, 1907?

A. Yes sir.

Q. That same brand?

A. The same brand.

Q. The Kairomel brand of corn syrup?

A. Yes sir, corn syrup. It never was called anything else.

Q. Can you pick out from that bunch of samples the next in order, if there was any particular one next in order?

A. There were a number of labels gotten up at this time for one of the companies, the Illinois Sugar Refining Company. They were all corn syrup labels.

Q. When was that?

A. 1884.

Q. 1884 or 1904?

A. The first order for the Illinois Sugar Refining Company was 1902; I should say the 28th of June.

Q. 1902?

A. Yes. That is the way it is taken off of our books in the office.

Q. Now, was this same label afterwards put out for the Corn Products Manufacturing Company?

A. Yes sir. The originals were Illinois Sugar Refining Company.

Q. Where Corn Products Manufacturing Company, Davenport, Iowa, now appears?

A. Yes sir, that is the idea. It was Illinois Sugar Refining Company.

Mr. OLIN: It was put out originally by the Illinois Sugar Refining Company?

A. Yes sir. I think some of them have that on it.

Q. Here are four on which appears Illinois Sugar Refining Company and you may look at those. They are Exhibits 132, 133, 134, 135. I will ask you if those were put out for that company and when?

A. We began putting them out in 1902 and continued all of them ever since, some more than others, it depends on which brand happened to be running the greatest.

Exhibits 133, 134 and 135 hereto attached and made a part hereof.

Q. Then after the Illinois Sugar Company was merged into or purchased by the Corn Products Manufacturing Company the name was changed at the bottom?

A. Yes sir.

Q. Otherwise the label remained the same?

A. Otherwise it remained the same.

Q. And these are used clear down—

A. To the present time.

Q. Well, I will confine it to July 13, 1907?

A. Yes.

Q. Now, here are two I see, the Davenport Syrup Refinery, Davenport, Iowa, those are Exhibits 136 and 137. Was this one of the

companies, do you know, that was taken in later on by the Corn Products Company?

A. Yes sir, by the Corn Products Company.

Exhibits 136 & 137 hereto attached and made a part hereof.

Q. When did you begin to print those labels, those two?

A. Well, those were all started out about the same time, those were all new, the Anchor was the same.

Q. The Anchor continued down to July 13, 1907?

A. Yes sir.

Q. I show you Exhibits 138 to 142 inclusive and I will ask you if you can tell when you first began to print labels of those brands.

A. Well, with the exception of one, that's the Argo, that
257 was made within the last two years.

Q. Exhibit 140?

A. Yes.

Q. Now, you will notice on this label the words "with cane flavor." I will ask you if those appeared on the label when the labels were first issued?

A. It did not.

Q. It did not?

A. No sir.

Q. That was inserted later on?

A. Later on. The original label was Corn Syrup, Illinois Sugar Refining Company, that was the changed name.

Q. I am getting at whether the label was changed later on by adding the words "with cane flavor."

A. It was.

Q. With that exception the label is the same, with the exception of the name of the company at the bottom?

A. With the exception of the name of the company.

Q. I will show you Exhibit 143, the Karo Corn Syrup label. There is no reference on that made to "cane flavor."

A. No sir.

Q. Now, I will ask you when you first begun to print that label?

A. May 21, 1903. It is one of the original labels.

Q. Can you state how many of these labels, together or separately, if you have them separately I wish it, but if not together, you printed for this company and delivered to them, or these companies that have been referred to, from the time the labels were first begun to be printed until July 13, 1907?

Mr. OLIN: How is that material?

Mr. FAIRCHILD: We will show that these labels were used in the sending out of this article broadcast, not only over the state
258 of Wisconsin, but over the whole United States.

COURT: Does your question refer to all labels?

Mr. FAIRCHILD: All these labels that I have called his attention to?

Mr. OLIN: I object to it as immaterial.

COURT: He may answer.

A. From 1902 to 1907 there were about two hundred millions of those particular labels. There are two individual items I can give the exact amounts on: Kairomel and Karo. Kairomel from the inception to 1907, about sixteen million, the reason I say about, is that on our contract we had the liberty of going over or under a certain percentage and as a rule we run it over, so I don't know just exactly how many, but that is pretty close. For Karo syrup, thirty-seven million. We might vary a million or two either way, more likely over than under.

Q. That is, you are more likely to have furnished them more?

A. Yes.

Q. Those were printed and delivered to the Corn Products Company?

A. Yes sir.

Q. And were those all in one order or different orders from time to time?

A. Different orders from time to time.

Q. As they were required?

A. Yes sir, our contract run for two years and we furnished all that was required during that time.

Q. Do you know whether you supplied them with all these corn syrup labels or not?

A. With all the corn syrup?

Q. Yes.

A. Yes sir.

Q. Have you during all of this time referred to from April 1900 to the present time?

259 A. Yes sir.

Exhibits 131 to 143 inclusive are hereto attached and made a part of this bill of exceptions.

Cross-examination by Mr. OLIN:

Q. Does your company supply labels for other concerns?

A. Oh yes.

Q. It does a general business along that line?

A. Yes sir.

Q. As I understand your testimony, generally speaking the printing of these labels began somewhere along in 1902?

A. Well, 1900, the Kairomel.

Q. The first 1900, but aside from that first one——

A. Yes, 1902.

Q. The first one is similar to one we introduced?

A. The same thing I think.

Q. 131. No, it differs I think in the name here. It says "Packed at the Chicago and Davenport Factories of Corn Products Company"?

A. Yes.

Q. The other was the "Glucose Sugar Refining Company" I think?

A. Yes sir.

Q. That would be later, would it?

A. Later, yes sir.

Q. As I remember Dr. Wagner's testimony on an exhibit we introduced here having that Kairomel brand on it, he says it was gotten up particularly for Michigan.

A. Perhaps he referred to that particular label, a certain percentage on here.

Q. I thought he referred to the name?

A. No, I think he referred to the percentage. Various states require different percentages and sizes. That is one of the originals. I brought that because I thought you might want to see the first one.

Q. And that has been used down to the present time?

260 A. That has been used down to the present time and still using it.

Q. That prints "90% pure corn syrup and 10% cane syrup."

A. I believe that is the formula there, yes sir.

Q. Do all of your labels as you remember use the term corn syrup?

A. I think latterly they use the term refiners' syrup.

Q. Now, this company is the Corn Products Company now. Did you understand that the previous Glucose Refining Company was merged into that?

A. Was merged into that, yes sir.

Q. It seems you have spoken of a number of companies here. One is the Illinois Sugar Refining Company?

A. Yes sir.

Q. I think you said these labels have been continued right down?

A. Yes sir. They were merged into the Corn Products Company.

Q. That was another company that was merged into the Corn Products Company?

A. Yes.

Q. Then was the Davenport Refining Company?

A. Yes sir.

Q. Or Davenport Refinery?

A. Davenport Syrup Refinery, yes sir.

Q. Was that also another company?

A. That is practically the same company, except the syrup was put up at Davenport.

Q. The brand was the same thing?

A. The brand was the same thing.

Q. What other companies that you know were merged in that Corn Products Company?

Objected to as improper cross-examination.

Objection sustained.

Q. Did you print labels for those different companies prior to the summer of 1902?

261 A. Yes sir. Well, I see you put the question "different companies." Prior to 1900 most of the labels were printed for the Glucose—

Mr. FAIRCHILD: He said 1902.

A. Prior to 1902 we printed them for the different companies, yes sir.

Q. What was the difference in the labels then as compared to what they were from 1902 on?

A. You mean prior to that time?

Q. Yes.

A. These corn syrup labels were all gotten up in 1902.

Q. Before that they didn't use that term?

A. Except in the case of Kairomel, which was 1900.

Q. That is one exception?

A. That is one.

Q. So the term corn syrup came into use then, as we understand practically in 1902?

Objected to as improper cross-examination.

Q. So far as your labels are concerned.

A. 1900.

Q. Well, aside from that one brand that you speak of, the Kairomel.

A. Yes sir.

Q. And what was the term in place of corn syrup on the labels that you printed for these companies prior to 1902?

Objected to as improper cross-examination. I confined my questions entirely to these labels and to a period beginning in April 1900, and didn't go back of that, and I object to any examination back of that as not proper cross-examination.

Objection sustained.

Q. Calling your attention to these other Exhibits in the order I have them here, Exhibit 135 has on it, hasn't it, "Compound, corn syrup 90%, cane syrup 10%."

A. Yes sir.

262 Q. Is that continued in that way right down to the present time or until July, 1907, I think you said?

A. Well, there may be some changes in the phraseology in the last order or two, I wouldn't be positive.

Q. Have you any distinct recollection of any change?

A. Nothing except dropping the word "Compound."

Q. Well, I don't care anything about that.

A. That is the only thing.

Q. Then in this next label, which is 134 it is "Corn Syrup 90%, Cane Syrup 10%." That is the same isn't it?

A. Yes sir.

Q. And Exhibit 133 has "90% Corn Syrup and 10% Cane Syrup."

A. Yes, but that is the Illinois Sugar Refining Company. Today it would be "Refiners' Syrup" instead of "Cane Syrup."

Q. For that company?

A. For the Corn Products Refining Company.

Q. Well, have you got with you such a label?

A. I don't think I have.

Q. Exhibit 137 is for the Davenport Sugar Refinery, isn't it?

A. Yes sir.

Q. And that contains "Compound, 90% Corn Syrup and 10% Cane Syrup"?

A. Yes sir.

Q. The other one, it is partly torn off of 136, but you can see, can't you, it is "90% Corn Syrup" and starts out with "10% Cane"?

A. Yes sir.

Q. And Exhibit 132 is "Corn Syrup 90% and Cane Syrup 10%."

A. Yes sir.

Q. There is one here not marked that says "Anchor Corn Syrup." That has "90% Corn Syrup and 10% Refiners' Syrup."

A. Refiners' syrup.

Q. That is the only one that has "refiners' syrup" of all the labels that you have produced?

263 A. Yes sir, that is the latest phraseology.

Q. There is another bunch here that I omitted, the Karo brand, Exhibit 143, you may just look at that and see if that hasn't "85% Corn Syrup and 15% Cane Syrup."

A. Yes sir.

Q. And what is the fact as to 140?

A. That's "Corn Syrup with Cane Flavor."

Q. And Exhibit 141, what does that show?

A. "Corn Syrup with Cane Flavor."

Q. Does it give the percentage?

A. "90% Corn Syrup and 10% Refiners' Syrup."

Q. And this one that I show you, Exhibit 141, what is that?

A. "90% Corn Syrup and 10% Refiners' Syrup."

Q. And Exhibit 139?

A. "90% Corn and 10% refiners'."

Q. That's for the Corn Products Manufacturing Company, Davenport, Iowa, isn't it?

A. Yes sir.

Q. That is what these are all?

A. Yes sir.

Q. And Exhibit 138, is that the same?

A. "90% Corn Syrup, 10% Refiners' Syrup," yes sir.

264 JOHN H. BRADSHAW, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Bradshaw, where do you live?

A. Evanston, Illinois.

Q. Are you in any business?

A. Yes sir.

Q. What?

A. In the syrup business.

Q. In what way in the syrup business?

A. I am doing what is known as the mixing business.

Q. How long have you been engaged in that business?

A. Well, I have been in the syrup business forty-three years. I have been blending more or less about thirty-eight years.

Q. Is your factory in Chicago?

A. Yes sir.

Q. Do you know an article called corn syrup?

A. Yes sir.

Q. How long have you known that article, corn syrup?

A. Well, for the last thirty-eight years.

Q. Have you been mixing and producing corn syrup—have you been producing corn syrup yourself?

A. I haven't been making it, not manufacturing it. I have been blending corn syrup with what is known as refiners' syrup.

Q. How long have you been doing that?

A. The last thirty-eight years.

Q. Continuously?

A. Yes sir.

Q. Have you been selling this article as corn syrup?

A. Yes sir.

Q. For how long?

265 A. Ever since I have been in the business more or less.

Q. Is it known to the trade as corn syrup?

A. It is.

Q. To whom do you sell, to what class of trade?

A. Jobbing trade. Principally the wholesale grocers at the present time.

Q. Were you at one time an extensive dealer in this article?

A. Well, I was considered so.

Q. Was this article unmixed also called glucose?

A. Yes sir.

Q. Do you know whether the article unmixed usually bore a different name from the article as mixed? When I say mixed I mean prepared as a syrup for the table?

A. Well, unmixed it was originally called glucose.

Q. And mixed?

A. And mixed it was commercially known as corn syrup.

Q. During all that time?

A. More or less.

Q. What do you mean by more or less?

A. Well, the jobbers after the first sale of corn syrup by them generally established a private brand after which in placing their orders they would place it for a specified quantity under that private brand.

Q. Well, how did you first begin to sell it, that is, as to the containers, barrells, half-barrells or kegs, or anything like that?

A. Principally barrells and wood packages, kegs and kits, that class of packages.

Q. That continued in that way down to about what time you say before you begun to put it up in cans?

266 A. Well, I think it continued in that way down to about seven or eight years ago.

Q. Have you put any up during the last seven or eight years in cans?

A. Yes sir.

Q. In which the brands used were corn syrup?

A. Yes sir.

Q. Have you sold some of your produce in Wisconsin as well as in other states?

A. Yes sir.

Q. Do you sell down East also?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. Did you ever sell any in Madison, Wisconsin?

A. No sir, I don't think I have.

Q. You can't remember of any dealer that you have sold anything of that kind to, can you?

A. I can not, if it was before 1890. Previous to that time I sold a great deal to the retail trade, retail grocers.

Q. Now, you have been, you say, in this mixing business for something like thirty-eight years?

A. Yes sir.

Q. Alone?

A. No sir.

Q. In company with some one?

A. In partnership at one time.

Q. What was the partnership?

A. Bradshaw & Waite.

Q. At what place?

A. In Chicago.

Q. What was the sign out over your place of business?

A. Bradshaw & Waite.

Q. Anything else?

267 A. Syrup Refinery.

Q. Did you do any refining?

A. Well, probably not as it would be called.

Q. You did mixing?

A. We did more on the mixing order.

Q. Well, did you do any refining?

A. Well, you might call cleansing refining.

Q. You bought your articles and then mixed them afterwards?

A. Yes sir.

Q. What did you buy for mixing purposes?

A. We bought what is known as corn syrup unmixed.

Q. Did you buy it as corn syrup unmixed?

A. Recently, yes sir.

Q. How recently?

A. Oh, within the last year.

Q. What you bought from the Corn Products Company within the last year, this unmixed article, that was under the name of corn syrup for your purposes?

A. Yes sir.

Q. Always before that, for some thirty-eight years, you had bought that article as mixing glucose, hadn't you?

A. Yes sir.

Q. Always known in the market as mixing glucose?

A. Yes sir, with a certain degree Baume, a certain degree of density.

Q. And you had never heard of it being sold unmixed under any other name prior to within the last year, had you, Mr. Bradshaw?

A. No sir, I don't think I had.

Q. Now, when you got that article it was light in color I suppose?

A. Yes sir.

Q. You would say, wouldn't you, Mr. Bradshaw, that this number 1 Exhibit would be a fair representation of the article you were in the habit of buying?

268 A. It looks so, with the exception that the body is rather light. The color is all right.

Q. But it would be substantially that color?

A. Yes sir.

Q. And without any distinctive flavor, was it?

A. Without any flavor perceptible.

Q. You never attempted to sell it in that form for table use?

A. No sir.

Q. You couldn't dispose of it for that purpose in that form, could you?

A. No sir.

Q. In order to make it an article for table use you had to mix with it certain syrups?

A. Yes sir.

Q. And the kind you used were the different syrups; cane, sorghum?

A. Yes sir.

Q. Molasses? -

A. Yes sir.

Q. And refiners' syrup?

A. Yes sir.

Q. The refiners' syrup you have only used of late years—rather recently?

A. No, I have used it—well, I have used more or less of it from the very start. It was not called at that time though refiners' syrup. It was called at that time cane syrup.

Q. Cane syrup?

A. Yes.

Q. And you produced the article which you sold to the retailer, or did you sell to the wholesaler?

A. We sold mostly—a great deal to the retail trade at that time, early in our business career.

269 Q. You sold the mixed article?

A. Yes sir.

Q. A certain percentage of the glucose with this syrup, whether one brand or another, as the mixed article?

A. Yes sir.

Q. Now, as I understood your testimony, you said something about the local dealer desiring some particular brand?

A. Yes sir.

Q. And you accommodated him, did you?

A. Yes sir.

Q. And blended the article you sold to suit his fancy?

A. Yes sir.

Q. Some times I suppose you branded it "Sorghum Syrup" didn't you, sometimes "Cane Syrup"? I am talking now previous to the last few years, before there were any food laws having anything to do with the branding of food products.

A. Well, it was more of a fancy name for it, such as Phoenix Drips.

Q. Or Fancy Drips?

A. Fancy Drips or Brilliant.

Q. Honey Drips?

A. Honey Drips.

Q. Table Syrup?

A. Yes, Table Syrup.

Q. Rock Candy Drips?

A. Well, yes, I think there was Rock Candy Drips or Rock Candy Syrup.

Q. Made up though very largely of this glucose?

A. Yes sir.

Q. That constituted the main body of the article?

A. Yes sir.

Q. And that continued, did it not, the label or designation of the articles you sold down to quite recently, those various terms?

A. Down to within probably three or four years.

Q. And when you said that you sold this corn syrup or had known of it for some thirty-eight years, you didn't mean that it was sold by you under that name, but that it was the same article that is now spoken of as corn syrup?

A. The same article.

Q. But not designated as that?

A. As corn syrup?

Q. Yes.

A. No sir.

Q. In a good many of the states it is now not lawful, as you understand, is it, or has it been for the last few years, to sell these mixed syrups under these fancy names that have been spoken of?

Objected to as incompetent.

Objection overruled.

Exception by defendant.

A. Under certain names, any name that would misrepresent the goods.

Q. Wouldn't be allowed?

A. Wouldn't be allowed.

Q. Now, hasn't that kind of legislation been the reason for your using the last few years on these mixtures this term corn syrup, when you didn't use it before?

A. I don't quite understand that.

Q. You said you had been selling the mixed article under the name of corn syrup only the last few years. Now you came to use that name corn syrup on these mixed articles, didn't you, Mr. Bradshaw, because under various statutes in the different states you were not allowed to use these other names that had been used before by the trade?

A. Well, not necessarily so. The demand calls for it under that brand.

271 Q. Isn't that mainly the reason why you made the change?

A. Well, we had to make that change on account of putting the formula upon the labels.

Q. Do you mean the percentage of the article?

A. The percentage of the articles.

Q. You have put them on in late years and in naming the percentage you used the term corn syrup, didn't you, instead of glucose?

A. Yes sir.

Q. Although the article represented by that percentage was the same article that you had been buying for thirty or forty years as glucose?

A. The same article.

Q. The percentages being there on the package or can by reason of the law requiring it?

A. Yes sir.

Q. And then the only question was whether you were permitted to use the term glucose or some other term like corn syrup?

A. Yes sir.

Q. And you used corn syrup where it was permitted, didn't you, because you thought it would be a better name to sell the article than to use the word glucose?

A. I considered it to be a true name.

Q. Well, isn't the other true too, Mr. Bradshaw—we will pass by what you considered it, a true name—you admit that in its natural state it isn't a syrup fit for table use, don't you?

A. Yes sir.

Q. So that when you come to put it on the can you thought, didn't you, as a dealer or mixer in selling to dealers, it would sell better if you would call it corn syrup instead of calling it glucose?

272 A. Yes sir. That was——

Q. That was one of the reasons?

A. That was one of the reasons.

Redirect examination:

Q. Now you stated, Mr. Bradshaw, that you sold for a great many years this article as corn syrup. Did you ever sell it as anything else than corn syrup until you began to sell it in cans?

Mr. OLIN: I object to that. It doesn't represent his testimony. He said he always sold it under corn syrup for the last two years.

Mr. FAIRCHILD: In cans.

Objection overruled.

A. Well, as I said before, we had sold it under these special brands.

Q. Well, were those brands on the barrels and kegs?

A. Well, on all packages.

Q. If a special brand was not called for, how would you sell it, how was it marked?

A. Well, it had to be branded something and I don't recall a case of that kind that we ever had.

Q. Did you have any brands of your own?

A. Yes sir.

Q. Did any of those contain the name corn syrup?

A. Of late years.

Q. How many years back?

A. Well, probably not over three years, since we commenced using the name corn syrup.

Q. Did you ever brand any of your barrels corn syrup?

A. Of late, yes sir.

Q. When did you first begin to brand them that way?

A. Well, I think it was in 1905, possibly 1903, in all of the syrup that we shipped into the state of Michigan.

273 Q. What is that?

A. In all syrup that we shipped into the state of Michigan. The law required there "Corn Syrup" or "Glucose," "Glucose Mixture."

Q. Did you begin to use this name, corn syrup, in such shipments into Michigan as soon as the Michigan law was passed?

A. As soon as the Michigan law was passed, yes sir.

Q. Well, that Michigan law was passed in 1903, May 1903.

Mr. OLIN: Well, he made that exception. He says three years ago, but perhaps earlier for Michigan.

Q. You began as early as that then to ship it to Michigan under this brand of corn syrup?

A. Yes sir.

Q. Now, did you have the same brand and use it on other shipments?

A. Into other states?

Q. Yes.

A. Not as early as that.

Q. Earlier than three years ago?

A. About three years ago—commenced to use it more generally.

Q. You had used it before that, before three years?

A. Not outside of the state of Michigan. Possibly Wisconsin.

Q. Now just taking the article as prepared for the table after being mixed, and without any reference to special brands that any one wished to put upon it, what was that article called in the market?

A. Corn syrup.

Q. During all those years?

A. During all those years.

COURT: What years?

A. For the last thirty-eight years.

274 Recross-examination:

Q. Well, now I will ask a few more questions by reason of the examination of counsel. Haven't you already testified, Mr. Bradshaw, that you didn't commence selling this mixture under the brand or name of corn syrup until the Michigan law was passed? That's true isn't it?

A. I didn't brand it. It was branded as such.

Q. And you didn't brand any mixture that you sold "Corn Syrup" before that time during the thirty or forty years you have been doing business, did you?

A. I don't think we did.

Q. And people didn't buy it under that name of you, did they?

A. Yes sir.

Q. Well, they bought it—it wasn't branded that way?

A. No sir.

Q. Did you brand it one way and bill it out another?

A. We generally billed it out according to the brand, but it was ordered as so much corn syrup.

Q. So much corn syrup?

A. So many packages.

Q. Or so many packages of Fancy Drips?

A. So many packages of Corn Syrup in a great many instances.

Q. How do you account for the fact, Mr. Bradshaw, that the man ordering goods of you would order corn syrup when it wasn't labeled corn syrup and never had been and hadn't been sold as such by them?

A. They knew, being customers, that I knew their brand.

Q. Their brand?

A. What their brands of syrups were.

Q. The retailer?

A. Oh, no, the jobbers. The retailers, it was sold to them on their own factory brand.

275 Q. Whose factory brand?

A. Bradshaw & Waite's, at that time.

Q. And that wasn't "Corn Syrup"?

A. It was branded "Corn Syrup".

Q. No, it was branded these other names you have spoken of?

A. Yes sir.

Q. And sold under that name?

A. Yes sir, in a great many instances.

Q. Well, didn't it always prior to about three years ago, excepting into Michigan?

A. It might have went out under that brand, but it was sold as corn syrup.

Q. And was sold by the retail dealers to the consumer under that brand, wasn't it?

A. Yes.

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Bradshaw, have you with you any original letters ordering this article from you as corn syrup?

A. I have, yes sir.

Q. Will you let me see them, please.

(Produced by witness.)

Q. Did you endeavor in selecting these out to make a complete selection or just to take a few of them?

A. It was just from one month's file.

Q. These are in the month of January, 1897, I see, all except one of them, which is in December 1899.

A. 1897 I think you will find those.

Q. Yes, 1897. One is 1899.

A. One is 1899.

Q. Were these letters received by you ordering this article from different places.

A. Yes sir.

276 Q. Different customers of yours?

A. Yes sir. They were either ordering or asking quotations.

Q. I show you Exhibit 144 and ask you if that's one of the inquiries asking quotations of prices on corn syrup?

A. Yes sir, addressed to Bradshaw & Waite, under date of January 12, 1897.

Mr. OLIN: We object to any such testimony for the reason, first, as incompetent, irrelevant; for the further reason that under the testimony of the witness it would have no force or effect. He has already testified that this article, so far as the public was concerned, was put out not under the name of corn syrup, but some other name. It was not sold as such on the market.

Mr. FAIRCHILD: You don't correctly state his testimony.

Court: I don't understand this to be in conflict with his testimony.

Mr. OLIN: It might not be in conflict, but it wouldn't be of any force in reaching any conclusion in this case. The term wasn't used to designate this product, which they now say should be named corn syrup, in the market: it wasn't branded as that, it wasn't sold as that.

Court: The objection may stand overruled.

Q. I show you Exhibit 145 and ask you if that is the original order received by you from the firm that it purports to be sent from?

A. Yes sir.

Q. Dated January 15, 1897?

A. Yes sir.

Mr. OLIN: Same objection to its admission.

Objection overruled.

Mr. FAIRCHILD: I offer both of these in evidence.

Q. Now, here are twenty-three different letters. I will ask you to

277 look at them and state whether they are the original letters received by you from the firm that purports to send them and at the time they purport to be dated, ordering this article as corn syrup?

Mr. OLIN: I object to that last. The letters show for themselves.

Mr. FAIRCHILD: All right. Ordering this article.

A. Yes sir.

Q. Now, the orders all emanate from one firm, but they request you to send, do they not, so much of this article to different places?

A. Yes sir.

Q. To different customers of that firm that writes the letter?

A. Yes sir.

Mr. OLIN: What firm is that?

Mr. FAIRCHILD: This is the firm of W. J. Gould & Company, wholesale grocers, Detroit, Michigan. Now we offer these in evidence. There are so many exhibits I hate to mark them unless you insist on it.

Mr. OLIN: Well, I think if they are competent at all, they had better be marked.

Mr. FAIRCHILD: Well, you may look at them and you will see that they are all orders for corn syrup. If you want them all to go into the record, you may have them.

Mr. OLIN: If you will leave them here so that I may look at them, I have no objection to your offering them in that way.

Q. Now, I will ask you if each one of these letters orders from you corn syrup by that name by the barrel?

A. Yes sir, all call for barrels, all barrels with the exception of a few half-barrels.

Q. Here is another from another firm, E. Bierhaus & Sons, Vincennes, Indiana. I will ask you if that is the original order to you for this article during the month of January 1897.

A. It was in inquiry for a quotation, not an order.

278 Q. For what?

A. Corn syrup.

Q. Quotation for corn syrup per gallon?

A. Yes sir.

Mr. FAIRCHILD: Now that letter is Exhibit 146. I will offer that in evidence.

Q. I call your attention to Exhibit 147 and ask you if this is the original order received by you from John J. Kerby of Detroit ordering this same article?

A. Yes sir, it is. It is an inquiry from John J. Kerby to quote a price.

Mr. FAIRCHILD: "Will you consider ten cents for corn syrup, freight prepaid, or less freight to Detroit, Messrs. Grones & Brehm are in the market for a car, and Edward Henkel Co., and Moran, Fitzimmons Co. would probably buy a car at this figure."

Q. I call your attention to Exhibit 148 and ask you if that is the

original order sent to you on the date that it purports to be dated January 12, 1897, from Danville, Virginia, for selling this article?

A. Yes sir.

Q. Now, I will ask you if that is the form in which your orders for corn syrup usually came when the party had a special brand which he wished to put on?

A. Yes sir, similar to that.

Mr. FAIRCHILD: I offer this in evidence. I will read it into the record in order that we may get the particular matter in the record before the court:

"DANVILLE, VA., January 12, 1897.

Messrs. Hradshaw & Waite:

Ship R. W. Lawson & Co. South Boston, Va. 40 barrels No. 19 corn syrup at 14½ delivered. Ship at once and brand it R. W. Lawson & Co. Honey Drips, South Boston, Va. Send nice barrels and ship quick. South Boston parties always want quick shipment on everything they buy.

L. T. PINGOR & CO."

Q. Now, this purports to be a letter from a broker, Charles H. Hart of Denver, Col. January 7, 1897. I will ask you if that is the original letter received by you?

A. Yes sir.

Q. From the party it purports to be at that date?

A. Yes sir.

Q. I will show you Exhibits 149, 150, 151 and 152 and ask you whether those are the original letters received by you from the party that purports to have written them and of that date?

A. Yes sir.

Mr. FAIRCHILD: I will offer those in evidence.
(Letter marked Exhibit 153 shown to the witness.)

A. I took it from our file of 1897.

Q. May it not have crept in there by mistake?

A. I don't think so. It would take it back too far.

Q. Was this letter, Exhibit 153, received by you in the course of mail from the party that purports to have written it and of that date?

A. As to the date—

Q. You think it was 1897. That would be of November 1897 instead of 1899?

A. Well, that letter, I don't know about it, it is addressed to me instead of Bradshaw & Waite. The firm at that time was Bradshaw & Waite.

Q. Were you dealing with such a firm as this?

A. Yes sir.

Q. Well, you received that letter there at your office?

A. Yes. We received that letter at our office.

Q. You think you received it in 1897 instead of 1899?

A. I think it should have been 1897.

280 Q. You are not certain about that?

A. I am not certain about it.

Mr. FAIRCHILD: I offer this in evidence.

Mr. OLIN: We object to it as irrelevant.

Q. I will ask you whether at that time you were receiving orders such as have been here presented from month to month, in about the same proportion as appears from the month of January, 1897?

A. I should say we were, yes sir.

Recross-examination:

Q. I see on one of these letters that have been offered in evidence, Exhibit 152, and I call attention to it as illustrating what I suppose was the practice, under date of January 28, 1897, from Indianapolis, Indiana, J. M. Paver & Co., it says: "P. S. Style of stencil inclosed." That was the style that they wished to have it marked or branded?

A. I presume so, yes sir.

Q. And if you sold, it went out under that brand?

A. Well, from that letter I should say yes.

Q. Well, that would be your practice of branding it if they gave a special direction?

A. Yes sir.

Q. Now, all these orders or letters pertain to an article that has been mixed?

A. Yes sir.

Q. Not the glucose unmixed?

A. No sir.

Q. I see that one here offers nine and a half cents. That is a gallon is it?

A. Yes sir.

Q. Another offers eleven and a half cents. That would be a gallon wouldn't it?

A. Yes sir.

281 Q. Another nine cents in one place and ten cents in another.

A. That is per gallon.

Q. After it is mixed?

A. Yes sir.

Q. Do you know what the mixture sells for today, about?

A. Yes sir.

Q. What is it?

A. About twenty-three and a half cents, barrel basis, f. o. b. Chicago.

Exhibits 144 to 153 inclusive and the twenty-two letter orders for corn syrup referred to in the testimony of this witness and offered in evidence, as appear in this bill but not separately numbered or marked as exhibits, are hereto attached and made a part hereof.

282 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Doctor, with reference to the adoption of these standards at Jamestown, or rather prior to the adoption of them there, do you know what the fact is as to the general circulation of Circular No. 19 among such men as gathered there?

A. Circular No. 19 was well known among all state food control officials and I believe also among manufacturers.

Q. And that of course would be true prior to the action of the meeting in 1908?

A. Certainly.

Q. There had still been further discussion, had there not?

A. Yes.

Q. On this very subject, as to whether or not glucose and corn syrup were synonymous terms?

A. Yes sir.

Q. Doctor, I will ask you to look at these two exhibits that were sold and state what they show as to whether either of them indicates that they are flavored with refiners' syrup. The one you have there is what exhibit?

A. Exhibit C, it is marked "Karo, trademark, Corn Syrup with Cane Flavor," in the prominent part of the label.

Q. Then the percentages are given, are they not, in a smaller place?

A. In much smaller type "Corn Syrup 85% Refiners' Syrup 15%" are given on the back of the package.

Q. The other, Exhibit B, is marked in what way in that respect, as to whether it's cane or refiners' syrup?

A. It is marked in the main label "Karo Corn Syrup, Trade Mark," and on one side of the package is the statement "90% Corn Syrup, 10% Cane Syrup."

Q. Do you find any "Refiners' Syrup" indicated on it any where?

283 A. No sir.

Q. Did the contents of either of those exhibits contain any cane syrup?

A. I do not think so.

Q. What did they contain and what was the flavoring element?

A. I think they contained a product known as refiners' syrup, or refiners' molasses, or refiners' sugar-house molasses.

Q. I hand you Exhibit marked 160 and you may state what that is?

A. Exhibit 160 is a mixture containing 85 per cent of glucose of 42 Baume strength and 15 per cent of cane syrup.

Q. Has cane a distinctive flavor?

A. It has.

Q. Is it like the flavor of the refiners' syrup?

A. It is not.

Q. And which is the superior article, the cane or the refiners' syrup?

A. Cane syrup is a superior article.

Mr. OLIN: We offer that exhibit in evidence, Exhibit 160.

Q. One question I think I didn't ask you which I wish you would answer briefly, if you can, and that is, what were the reasons, if you know, why the committee on standards dropped the term "corn syrup" as a synonym for glucose?

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial, it is mere hearsay at the very best, and they are standards by no one, they are simply an expression of opinion, if anything at all.

Mr. OLIN: Of course we take the position that they are a part of the law of this state.

COURT: Conceding that is true, are the reasons for the change material?

Mr. OLIN: Well, I think the court ought to be informed
284 by a witness who is competent to give the reasons for dropping the particular phraseology and adopting another.

Objection sustained.

Q. There has a term been used here, doctor, in the testimony two or three times of "invert sugar." Can you tell us what that is, just describe it briefly in plain language.

A. Invert sugar is a mixture of equal parts of the sugars dextrose and levulose. It is ordinarily produced by the action of acids or ferments upon cane sugar. It is contained in syrup and in acid fruits, primarily as a result of the change of the cane sugar.

Q. By acids?

A. Yes, in what is known as inversion of cane sugar.

Q. Is it therefore, a constituent of grape?

A. Yes sir, it is contained in grapes.

Q. And is that the sugar we see on the outside of grapes when they are made into raisins?

A. Only one of them.

Q. I wish you would explain that.

A. The dextrose is the sugar that crystal-izes out from raisins in the drying of grapes. It is less soluble than the levulose and on that account the synonym "grape sugar" for dextrose has arisen.

Q. Strictly speaking is that correct?

A. No, it is not, because dextrose is only one of the sugars contained in grapes.

Q. The other being the levulose?

A. Levulose.

Q. Now, I wish you would define, if you will, what is understood by sucrose?

A. Sucrose is a sugar of a certain definite formula and composition which is contained in the juice of all sugar and syrup producing plants.

285 Q. Such as what?

A. Such as the cane, the maple, the sorghum, the beet, the maize, etc.

Q. You say maize, you mean stalk?

A. Of corn.

Q. The stalk of the corn?

A. Well, the sap of the maize plant. In its ordinary commercial form it appears in its purest shape as rock candy; in somewhat less pure forms as granulated sugar and as loaf sugar. Very frequently the term cane sugar is applied to it somewhat loosely, independent of the source, independent of whether it comes from the beet or comes from the sugar cane it comes from a purified sorghum, although the latter is at present not a commercial source of pure sugar.

Q. Or from the maple tree?

A. Or from the maple tree, if it were sufficiently purified, the sugar in there, the sucrose, is frequently known as cane sugar.

Q. And would the sugar in all those cases be the same, no matter what the source was?

A. The sucrose would be the same chemically and organoleptically.

Q. Now, what can you say as to what are ordinarily understood by consumers as syrups, as to their source?

A. My opinion is that the ordinary consumer under the name of syrup—

Mr. FAIRCHILD: Is this an expert question.

Mr. OLIN: Yes.

A. —considers the concentrated juice from plants like the cane, like the maple, like the sorghum, or perhaps the maize.

Q. Each of which owes its sweetness to what?

A. To sucrose.

Q. Or cane sugar?

286 A. Or cane sugar.

Q. In the manufacture of these syrups from those sources is there produced an invert sugar?

A. In the boiling down of the sap it is impossible to prevent the formation of a greater or less amount of invert sugar.

Q. Now, the difference between these syrups depends upon what?

A. The difference between these syrups depends mainly upon the characteristic flavor, which is dependent on the source and characteristic of the source.

Q. Now, does glucose ever contain any cane sugar or sucrose?

A. No sir.

Q. Does it contain any levulose?

A. No sir.

Q. Does levulose make up a part of invert sugar?

A. It makes up one-half of invert sugar.

Q. Which is always present in true syrups?

A. Yes sir.

Q. Do true syrups contain any dextrin?

A. No sir. They may contain small quantities of gum-like sub-

stances, physically something similar to dextrin, but the percentage is always very small and they are not identical with starch dextrin.

Q. Have you got with you a copy of the definitions which you read the other day, in the different dictionaries?

A. Yes sir.

Q. One of the definitions given there of glucose, in the Century Dictionary was: "Second: In commerce the sugar syrup obtained by the conversion of starch into sugar by sulphuric acid, etc."

A. Yes sir.

Q. What do you say as to the accuracy as to the use of that term there "sugar syrup"?

A. I think the definition is faulty, or the name sugar
287 syrup is very loosely applied, because under the head of sugar syrup the Century Dictionary defines this product as follows:

Q. The same dictionary?

A. The same dictionary, Century Dictionary, defines sugar syrup as follows: "First. The raw juice or sap of sugar producing plants, roots, or trees. Second. In the manufacture and refining of sugar, a more or less concentrated solution of sugar.

Q. Is that definition of sugar syrup consistent with the statement above in defining glucose, naming it in commerce "sugar syrup" etc.

A. It is not consistent.

Q. Is the last definition of sugar syrup a correct one according to your notion, substantially?

A. I think sugar syrup might also well be applied to the solution of ordinary sugar.

Q. That would simply be adding to it?

A. Yes. And the name is so used.

Q. Your attention has been drawn to the hearing before Secretary of Agriculture Wilson and the other two secretaries, that resulted in the opinion that has been introduced signed by them, dated February 13, 1908. I will ask you to state whether on that hearing or prior to the decision the committee on food standards that had made its report originally in June 1906 of these standards was in any way notified of the hearing or consulted?

A. It was not.

Q. Or the opinions of any of its members asked?

A. No sir.

Q. Do you know whether any opportunity was given to the food chemists or specialists generally throughout the country to be heard on that hearing?

A. I understand that the Corn Products Company were the only ones that were given an opportunity for a hearing either directly before the three secretaries or before the secretary alone, I
288 don't know which.

Q. I wish you would state, doctor, the character of the sugar that is found in corn stalks or found in the juices from the same?

A. The main sugar contained in the stalks—greenstalks or only partly ripened stalks, of either sweet corn or the ordinary field corn, is sucrose. There is always present with it a small amount of invert

sugar. The composition of the sap of the corn stalk is very similar to that of the sorghum.

Q. And do you know from your reading and investigation as to the quantity of sweetness or sugar found in the maize plant or stalk as compared with the cane?

A. I do not know exactly as to that. I do know the relative amounts as compared with the sorghum.

Q. Well, as to the sorghum?

A. Under favorable conditions of growth the amount of sugar contained in the sap of the maize plant or corn is very nearly the same as in the sorghum.

Q. Have you since you were on the stand, doctor, following out some suggestion I think contained in the questions of Mr. Fairchild, looked up some of these reports on this subject of the making of sugar or syrup from the stalks of corn?

A. Yes sir.

Q. Have you got the books here?

A. Yes sir.

Q. Can you state the substance of what you have ascertained without turning to the books?

Mr. FAIRCHILD: I object to that as incompetent and immaterial. How does that affect the question of whether the name "corn syrup" can be applied to glucose when it is put up as a table syrup mixed with refiners' or cane syrup?

COURT: The objection is not based upon the fact that the 289 books themselves are not produced?

Mr. FAIRCHILD: Well, I certainly would want his authority.

Mr. OLIN: Well, get the books and turn to the pages, if you can do that, doctor.

Mr. FAIRCHILD: Does your honor hold that it is material?

COURT: Yes.

Exception by defendant.

Q. Now, you may take up the first one there that you have and give the reference, so that the counsel can look it up if he cares to.

A. In the report of the United States secretary of agriculture, or commissioner of agriculture, as he was called at that time, for 1877, there appears a report from pages 228 to 264 inclusive on the subject of maize and sorghum as sugar plants. In this report are included a considerable number of analyses both of the sap of maize and sorghum and of syrup produced from the sap, and the term corn syrup is also used in that report.

Q. Is that one of the reports that shows the test as to the number of pounds per acre, or is it some subsequent one?

A. I believe a subsequent one gives the number of pounds of sugar that can be produced per acre. In the report of the commissioner of agriculture of the United States for 1879, under the report of the chemists, on page 57, and following, there are included analyses of corn and sorghum sap from the plant, the percentage of sugar in the juice, etc. In the report of the department of agriculture for 1881 and 1882—

Mr. FAIRCHILD: The same objection runs to this whole subject.

COURT: The record may show that all this testimony with reference to the reports may be received as if the same objection had been made as made to the first and overruled.

A. 503 and 504 and the following, the analyses of the sap from maize and from sorghum, and a statement as to the amount
290 of sugar still contained in the sap of the maize after the corn had fully ripened. I might say with regard to the previous reports that they give analyses of sap at various stages of the growth, and they find in the case of sweet corn their most successful yield right after the picking of the corn for canning purposes.

Q. Is that in connection with the discussion that the stalks might be used for this purpose and the corn for canning purposes?

A. Yes sir, but the stalk after the grain is thoroughly ripened still contains sugar.

Q. Is it in connection with that that one of the reports gives the number of pounds?

A. Yes sir, 900 pounds of sugar available from an acre. Well, the statement is as follows: "Two years in succession sugar has been produced from the stalks after the corn had ripened at the rate of fully 900 pounds per acre." That is on page 504 of this last report, 1881 and 1882 together, I suppose it is 1882. And I have here a volume of the patent office report for the years 1843 and 1844.

Q. That department covered agriculture at that time?

A. As I understand it, yes. It contains numerous reference to the production of corn syrup, corn stalk syrup, and corn stalk sugar, as produced during those years in various parts of the United States, and successfully produced.

Q. You might refer to the pages there, so that the counsel on the other side can investigate?

A. I have a few of them, pages 99, 147, 138, 302, and quite a number more are included in this volume.

Q. Have you been able to secure the report of the committee that was appointed to investigate this subject of glucose and its manufacture, appointed by the National—what was it?

A. Academy of Sciences.

291 Q. By the Academy of Sciences in 1882, was it, or 1884?

A. They made their report early in 1884.

Q. Have you got any book that contains that report?

A. Yes sir.

Q. Will you let me see it? (Handed counsel.) This is entitled "Report of the National Academy of Sciences for the year 1883," on the outside.

A. Yes sir.

Q. Labeled "Library of the University of Wisconsin."

A. Yes sir.

Q. The report on this subject begins at page 65, doesn't it, in this book?

A. Yes sir.

Q. And how far does it go?

A. Up to and including page 143.

Q. In fact it includes everything after that excepting a page of index?

A. Yes.

Q. Are you acquainted with Leach on Food Inspection and Analysis?

A. Yes sir.

Q. What is that book?

A. It is the latest and perhaps the most comprehensive work on the subject published in this country.

Q. Have you the book here?

A. Yes sir.

Q. When was it published?

A. 1905.

Q. Do you know whether this book deals with the subject of glucose?

A. Yes sir. I suppose when you say glucose you mean commercial glucose?

Q. Yes, commercial glucose.

A. Yes sir.

292 Q. In what way does it deal with that subject?

A. The uses and the methods of analysis, composition, etc.

Q. Does it recognize corn syrup?

A. The only mention of the name corn syrup in Leach is found in what is evidently taken from the report on glucose of the committee of the National Academy of Sciences enumerating the names by which that product has been sold in this country. In the body of the book the term is never used.

Q. Do you mean corn syrup?

A. The term corn syrup I mean.

Q. Do you know how he defines the term commercial glucose?

A. Yes sir. He defines commercial glucose "as a heavy, mildly sweet, colorless, semi-fluid substance, having a specific gravity of forty to forty-five degrees Baumé. It is usually used as an adulterant of maple syrup, molasses, honey drip syrup, jellies, jams, and as an ingredient of confectionery." I did not read that completely, perhaps I should have done so. He gives that list to which I refer; "Commercial glucose, otherwise known as mixing glucose, crystal syrup, and starch or corn syrup, is a heavy, mildly sweet, etc." That is the complete definition. And he also gives "United States standard glucose, mixing glucose, or confectioners' glucose," followed by the definitions contained in circular number 19.

Q. Your definition in circular number 19 is the same as this book, as I understand?

A. Practically. I perhaps had better read it. "United States standard glucose, mixing glucose, or confectioners' glucose, is a colorless glucose varying in density between forty-one degrees and forty-five degrees Baume, at a temperature of 100 degrees Fahrenheit. It conforms in density within these limits to the degree Baume it is claimed to show, and for a density of forty-one degrees Baume contains not more than twenty-one per cent of water, and for a
293 density of forty-five degrees contains not more than fourteen per cent. It contains on a basis of forty-one degrees Baume

not more than one per cent of ash, consisting chiefly of chlorids and sulphate of lime and soda." It is practically identical, although the wording is slightly different.

Q. What is the position of this man who is the author of this work, Mr. Leach?

A. Professor Albert E. Leach was for many years analyst of the Massachusetts board of health, and he is now in charge of a government food laboratory at Denver under the food and drugs inspection act.

Mr. FAIRCHILD: He is recognized as quite a high authority?

A. He is, yes sir.

Q. Various advertisements have been introduced in evidence here, doctor, just to call your attention to a matter that I would like to have you explain, one of them states here on page 55 as follows:

Mr. FAIRCHILD: I object to that unless you propose to offer it in evidence.

Objection sustained.

Mr. OLIN: I will offer it in evidence, the advertisement marked Exhibit 161.

Recess until 2 P. M., at which time the direct examination of Dr. Fischer was continued by Mr. Olin.

Q. Doctor, I started to ask some question before intermission and objection was made to it, the document which I desire to direct your attention to. What of the elements of the grain corn go into the starch from which the glucose is made. We will leave out the advertisements, they will speak for themselves, you simply go on and state your answer to that question.

294 A. You mean the word elements there of course as not applying to the elements of chemistry, but to the various parts?

A. Yes, to the various parts.

Q. The parts of the grain corn or kernels of corn are, moisture, which is always present, if dried under ordinary atmospheric conditions.

Q. Can you state about the per cent of moisture?

A. I have here an average of quite a number of analyses which gives the moisture as 13.35 per cent. Fiber, which is cel-ulose, corresponding to wood fiber in chemical composition, 1.67.

Q. Now, right there, so that we can clean it up as we proceed, is there any nutritive element in that as you have described it?

A. No sir.

Q. There is such a thing as bran that comes from the manufacture of corn?

A. Bran is made from corn, yes, is a byproduct in the manufacture of glucose.

Q. Does that have a food value?

A. Yes, that isn't pure fiber, but it contains some protein substances. They average as high as fourteen per cent of protein.

Q. Not fourteen per cent of the entire product?

A. No. I don't know what the amount is that they get out of corn.

Q. Now, the next element is what?

A. Gluten, that is, chemically speaking, not commercially speaking; gluten, 10.17 per cent. Now, I understand there is also manufactured what they call gluten, which is worked up into gluten feed and which contains forty per cent of proteid substances. This gluten is pure proteid, the one I refer to, 10.17.

Q. And that constitutes what part of the corn as a food product?

A. 10.17. This gluten that I mentioned here includes the proteids in what is ordinarily sold as gluten feed, and the proteids that are in the bran.

295

Q. Well, it is called a nitrogenous substance?

A. Yes sir.

Q. As distinguished from a starch?

A. Yes, proteid, that means nitrogenous.

Q. And when taken into the system builds up what part of it?

A. The gluten is the muscle building part of the food.

Q. And does starch build up the muscles?

A. No sir, it can not. Starch can only produce fat and affords heat and energy to the system. Gluten feed is used as cattle food. That contains forty per cent of actual gluten.

Q. Now, the oil is what per cent?

A. Fifty-eight.

Q. That comes from what part of the kernel of the corn?

A. From the embryo.

Q. Or the germ?

A. Yes sir.

Q. Is that the little yellow part that we find in the center?

A. Yes sir.

Q. Does that pass into the starch?

A. No sir. That is removed in the manufacture of glucose.

Q. What is done with that if you know.

A. That is made into a corn oil which is used largely as an adulterant of oils, and into oil cake, which is used as a cattle food.

Q. That don't go into the starch at all?

A. No sir.

Q. The next element?

A. In a chemical analysis generally expressed as ash, which means the inorganic constituents of the corn, of which 1.40 per cent are present.

Q. Now, what function does that serve as a food?

296 A. A certain amount of ash constituents are absolutely essential to nutrition, and the ash of all grains is high in phosphates and are especially important. In part they are the bone building constituents of a food, although they serve other important purposes.

Q. Now, there is left, generally speaking, what other element?

A. Starch.

Q. Making up what per cent?

A. 68.63.

Q. Now, is there in either starch or the product you get from

starch called glucose any of these other elements: fiber, gluten, oil, ash?

A. As I understand it, they attempt to remove those as perfectly as they can.

Q. And the more perfectly they remove them the better form of starch is secured?

A. Yes, the starch that they produce runs as a rule over 99 per cent of pure starch excluding the moisture.

Q. So what would you say then as to this article glucose containing all of the essence of the corn as a grain?

A. I should say that it is false and misleading.

Q. When you eat, for instance, corn bread or corn meal, you get all of these other elements, do you not, that you have spoken of?

A. Yes sir.

Q. Now, bearing on that question, doctor, what this starch contains I direct your attention to a statement made in this report of the National Academy of Sciences, which was signed by I think five gentlemen: George F. Barker, chairman, William H. Brewer, William Gibbs, Charles F. Chandler and Ira Remsen, Committee, on page 76 they treat of that subject of what the starch contains.

COURT: Is that the report of 1883?

Mr. OLIN: The report of 1884.

297 Q. You may just read that paragraph?

A. It refers to that incidentally in discussing the question of substitution of Indian corn for barley in the brewing of ale or beer.

Mr. FAIRCHILD: I object to this line of testimony as entirely immaterial. I assume that brother Olin is striving to show as untrue some representations made in the advertisements.

Mr. OLIN: No, I am now trying to show that that committee has substantially reached the same conclusion as to the elements that make up this substance—corn and the elements that go into the starch.

Mr. FAIRCHILD: Well, the same conclusion that they arrived — is the one just testified to by Dr. Fischer?

Mr. OLIN: Yes.

Mr. FAIRCHILD: Well, I should have objected to that as well. What effect can it possibly have upon the issue here? How can these defendants be prejudiced by any puffing advertisements, by any of the advertisements that were put out as to this article. The question is whether this corn syrup is or is not a proper name to be applied to that article—as it is—as it is permitted by the statutes to be sold and as it is sold and as it was sold in this case.

COURT: What is the purpose of the offer?

Mr. OLIN: Why, the purpose of it — to show as one of the reasons why the legislature did a wise thing in requiring this article to be named what it is, glucose, that this mixture instead of permitting them to use the name corn in advertising as they do, as coming from the kernel corn; if it did come from the kernel corn and is entitled to that name, they could advertise it that way. It seems to me it

298 is most material as showing the taking by this company or seeking to of a name to itself under which they admit they couldn't sell, that is, the article that comes from the corn, the only article that comes from the corn, namely, the glucose, they couldn't sell as a syrup at all, and attaching to it this other name and then selling it.

COURT: He may answer.
Exception by defendant.

A. This statement, in the National Academy report is as follows: speaking of the uses to which glucose is put as a substitute for barley malt in the brewing of ale or beer: "This is really a substitution of Indian corn for barley, but it constitutes a very imperfect substitute, as the corn by the treatment employed in extracting its starch for conversion into glucose is completely deprived of all the nitrogenous bodies and mineral salts which it originally contained; hence the glucose alone, which is simply transformed starch is substituted for the entire barley grain with its great variety of valuable constituents. This is not true, however, of the maltose produced from the corn."

Q. This is as far as I care to go, that answers the question. You answered a question or two with reference to a work that you said was a standard work, by Mr. Leach, just before the intermission, doctor.

A. Yes sir.

Q. Did I understand you to say that this work was issued in 1905?

A. According to the title page and according to my recollection it was.

Q. Before the standards or rather while the standards as they then existed in circulars number- 10, 13 and 17 were in existence.

A. Standard 17 was in existence.

Q. Each recognize corn syrup as synonymous with glucose?

A. Yes sir.

299 Q. Now, does this work recognize anywhere corn syrup as synonymous with glucose?

A. Not in their definition of standard glucose.

Q. Have you got the book there? (Produced by witness.) Does the work mention "corn syrup" in its body at all?

A. The only place it mentions corn syrup is in the paragraph that I read. Although it uses the word glucose again and again in treating of sugar and saccharine products, it never refers to it under any other name than as "glucose" or "commercial glucose"

Q. What do you say the fact is as to all of these works that deal with this subject in naming the different names under which it may be sold commercially.

A. Why, if I understand your question right, I should say that any treatise on food and food adulterations to be thorough would include all the names by which food products are sold at the time the book was being printed, whether the names under which they were sold are honest or not.

Q. As giving the history and actual facts in the case?

A. Actual facts as they existed at the time the book was written.

Q. Irrespective of the opinion of the particular author?

Mr. FAIRCHILD: That is an argument.

Q. Well, isn't that a fact?

Mr. FAIRCHILD: That is an argument by the witness.
Objection sustained.

Q. Are you familiar with the work by Leffmann & Beam?

A. Yes sir.

Q. Have you got that with you?

A. I have.

Q. That is a book on what?

A. A book entitled "Food Analysis."

Q. And who are Leffmann & Beam?

A. I do not remember their exact positions now. Henry
300 Leffmann, A. M., M. D., Ph. D., and Beam, A. M., M. D.,
F. I. C.; those are the titles by which they go. I believe they
both reside in Philadelphia.

Q. Do you know the standing of the book?

A. Yes sir. It was regarded up to the printing of Leach's Food
Analysis as the standard authority on food analysis in this country.

Q. Do you know how they designate this article that we have been
investigating here, glucose?

A. In speaking of it in the body of their work they always refer
to it as glucose, although in the same way or similar way as Leach
handles the subject, I believe they state somewhere that glucose is
often termed corn syrup, that is the quotation.

Q. That is a quotation?

A. Yes sir.

Q. On what page?

A. On page 125. It says: "In trade the term glucose is re-
stricted to the syrup. The solid is called grape-sugar."

Q. That is, using syrup in the sense of liquid there?

Objected to.

Objection overruled.

Exception by defendant.

Q. Are you familiar with the work by Blythe?

A. Yes sir.

Q. What is that?

A. Blythe is, I believe, the recognized authority on food analysis
in England. It is a book entitled "Foods, Their Composition and
Analysis".

Q. How recent a book is that?

A. 1903.

Q. Do you know how that book deals with this subject of glucose?

A. Yes sir.

301 Q. You may state—whether it recognizes the name corn
syrup as a synonym for glucose?

A. Not in the body of the work. There are several references
which I shall try to find and read. Here is one. There are not very
many references to glucose. "On treating golden syrup, molasses,
the above named syrups are byproducts of the sugar industry, and

all consist essentially of sucrose and sugar, the common adulterant being glucose syrup. Considerable attention has been devoted of late years to this form of adulteration, on account mainly of the possibility of arsenical contamination by arsenical glucose."

Mr. FAIRCHILD: What page is that, doctor?

A. Page 127.

Q. Are you familiar with Allen's Commercial Organic Analysis?

A. Yes sir.

Q. What is that work?

A. It is the most extensive work on the subject of commercial organic analysis in the English language. It is published in England and there is an American edition by Henry Leffman.

Q. Do you know how many volumes?

A. Why, it is issued in four parts and about eight or nine volumes and perhaps more.

Q. Do you know what the date of the edition you are referring to in this country is, about?

A. Volume I which I have in my hand and which treats of sugars and their substitutes and saccharine products, bears the date 1905.

Q. How does this treat this article we have been speaking of here?

A. I only find it in once, the mention of the name corn syrup, where they apparently quote the report of the National Academy of Sciences. This statement is found in it: "In America the term glucose is restricted to the syrupy preparations, the solid product being distinguished as grape-sugar. The following grades are recognized: Liquid varieties; glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, and confectioners' glucose." If I am not mistaken, that is the exact order in which the National Academy report gives these. That is page 359. And then it gives the solid varieties, which I do not suppose you want. Another place on page 312 is this reference: "Starch glucose is very extensively employed in the manufacture of confectionery, but its use seems wholly unobjectionable unless its nature be misrepresented".

Q. Do you know, doctor, whether patents have been taken out on processes or machinery for the manufacture of corn syrup from the juice of the corn?

A. I understand that patents have been taken out.

Mr. FAIRCHILD: Is that the same reference you made the other day, as to seeing something in the newspapers?

A. No sir.

Mr. FAIRCHILD: You mean recently taken out?

A. I don't know the exact dates. I wouldn't even want to say how recent.

Q. One other work I wanted to call your attention to, and that is the British Pharmacopœia. Are you acquainted with that?

A. Yes sir.

Q. And do you know how that treats this substance, glucose, or mixing glucose that we are dealing with?

A. It is in the British Pharmacopœia called "liquid glucose" and a preparation is officially called "syrup of glucose", which is made by mixing one part of liquor glucose with two ounces of syrup, which

syrup in the British Pharmacopœia is defined or consists essentially of a saturated solution of cane sugar in water, as it is universally so recognized in pharmacy, simple syrup.

Q. And how recently are you speaking now of the British Pharmacopœia?

303 A. This is the pharmacopœia of 1898, I believe the last edition.

Q. Does that recognize anywhere the term corn syrup as synonymous with glucose?

A. No sir.

Q. Do you find a statement in this same report of the Academy of Sciences on page 77 on the question as to whether it is proper to use dextrin in a syrup?

A. Yes sir, I remember such a reference.

Q. I wish you would state the conclusion as stated there by the committee on that subject.

A. Speaking of the change that takes place by the action of acid upon starch, with the intermediate formation of dextrin it says: "The extent of the transformation is dependent upon the strength of the acid, the temperature and the time during which the heating is continued. The intermediate products are chiefly maltose and dextrin, which may be present in greater or smaller quantities according to the way the process is carried out. If the product is to be used in the form of syrup, then the presence of dextrin is objectionable, as it has no sweetening power, though it does not produce injurious effects upon the system." And further: "If it is to be used in the manufacture of beer, it should be borne in mind that dextrin does not undergo fermentation."

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, is refiners' syrup cane syrup?

A. No sir.

Q. What kind of syrup is it?

A. I do not think it is a true syrup.

Q. Well, your standards say so, don't they?

A. The name refiners' syrup has long been used to designate a sugary product that comes from a sugar refinery, and that name was suggested to the standards committee as a proper name, in a similar way doubtless as corn syrup was suggested to them as a proper name for glucose. I do not think that refiners' syrup is a proper name. I think it ought to be called refiners' molasses or sugar-house molasses, because it is a molasses rather than a syrup.

Q. But it comes from cane, doesn't it?

A. The sugar that is in it comes from cane. Other things that are in it do not come from the cane? And it hasn't a cane flavor, it has not the flavor of cane syrup.

Q. What is there in it that doesn't come from cane?

A. What there is I don't know, I don't think anybody knows, but there are certain flavoring substances that are developed; probably due to the frequent filtration through bone-black, probably changing their flavoring constituents, which give to that product a char-

acteristic flavor of its own, and also adds to the product a large amount of inorganic matter, the ash in refiners' syrup being much higher than it is in molasses, going up as high as eight and more per cent.

Q. But all of the essence, so far as sweetness is concerned, in the refiners' syrup comes from cane?

A. The sugar, cane sugar that is in the refiners' syrup was present in the cane sap from which it was made.

Q. You don't get the sugar that you get in the refiners' syrup from any other source than from the cane, do you?

A. No sir.

Q. Well, isn't it regarded as a cane syrup of a cheaper grade than what we call ordinarily cane syrup?

A. I am afraid the name has misled people to suppose that, but it isn't that. It partakes of the nature of molasses.

Q. Well, you say it is recognized in that way?

A. Why, it has been commercially so sold.

Q. Isn't refiners' syrup commercially recognized as a cane
305 syrup of an inferior grade to what we ordinarily term cane syrup?

A. By some people. By others not. The planters do not call it cane syrup, but call it refiners' molasses or sugar-house molasses. That is the dictionary definition of this too.

Q. I mean those in commercial trade.

A. I suppose commercially they have created names that would make the article more salable.

Q. Under what name would that syrup ordinarily be recognized or known by the public generally?

A. It is sold under the name treacle about as much as any other name. Treacle is a synonym for this refiners' molasses.

Q. But a person going to the store to get that syrup wouldn't think of calling for treacle?

A. No. He wouldn't call for refiners' syrup either. He would call for syrup and get whatever was dished out to him.

Q. What authority is there, doctor, for putting a limited name or definition upon the word syrup as applied to the article produced from what you would call stalks—corn?

A. Corn you say?

Q. Yes.

A. I think the term corn, depending upon the connection in which it is used, may refer either to the grain or to the stalk, if that is what you mean.

Q. No, I am talking about why an arbitrary definition for the word syrup is applied to—

A. Oh, syrup, as applied to what?

Q. As applied to the article that you get, from corn or starch.

A. Are you referring to our standards now, our definitions, standards for syrups?

Q. Yes, standard definitions.

A. I believe that the ordinary consumer when he pur-
306 chases syrup has in mind the manufacture in this country, as we mean the manufacture, of cane syrup or sorghum or

maple syrup and thinks he is getting the concentrated sap of some sugar producing plant.

Q. Why do you say that, what do you know about what is in the mind of a purchaser who comes into the store to buy syrup?

A. Because I have purposely made quite an extended investigation on that subject and have asked a large number of consumers and purchasers as to their impressions when they purchased corn syrup.

Q. Now, hasn't this term syrup been applied to glucose for a great many years, a hundred years say, ever since they started to manufacture glucose?

A. Corn syrup?

Q. No, syrup, hasn't it been denominated as a syrup?

A. Why, it has been sold as a syrup, as it has been sold for molasses and sorghum and Honey Drips and Fancy Table Syrup.

Q. Hasn't it been known I say ever since the manufacture of glucose began?

Mr. OLIN: You mean the unmixed article?

Mr. FAIRCHILD: Yes, the unmixed article.

A. Not in this country. Sometimes as "starch syrup." Never I believe merely as "syrup."

Q. Well, you find it referred to very frequently, don't you, as a starch syrup; some times as a corn syrup; in every book that you have referred to it is referred to as a syrup? Don't you find that wherever you go, wherever you read about it, don't you read of it as a syrup?

A. No sir. It is almost universally in this country called glucose.

Q. Well, when the character of it is referred to isn't it as a syrup?

A. It is called as a substance of a syrupy consistency, yes,
307 and very broadly speaking as a syrup.

Q. I ask you if it isn't referred to as a syrup too?

Mr. OLIN: He said very broadly speaking as a syrup.

Mr. FAIRCHILD: Broadly speaking—I am not asking him to define what the man who writes an article or writes a treatise may have in his mind when he uses it.

Q. I ask you if that name isn't applied to it?

A. That name appears in books that I have read, but the name which appears most frequently is glucose.

Q. I am not asking you as to most frequently, but I am asking you if it isn't frequently applied in that way?

A. I believe I have given the facts as to that when I read from those books, because I hid nothing, I gave the facts as they appeared.

Q. Now, take this work of Leach's, there are two editions of that here; we have an edition of 1904, you have one of 1905?

A. Yes.

Q. And in both of these editions it reads in this way: 1905, page 440, "Commercial glucose, otherwise known as mixing syrup, cereal syrup, and starch or corn syrup."

A. Does it say "starch syrup" there?

Q. It most certainly does—or “crystal syrup,” excuse me.

A. Well, I read that definition of glucose from Leach, but I said in the text proper of the book outside of that one statement there is no reference to glucose as a syrup or as corn syrup.

Q. Well, he says there that it is “otherwise known as.”

A. Certainly, he gives the commercial names under which it was being sold at the time that book was written whether honestly or dishonestly.

Q. The Century Dictionary says that glucose is a sugar syrup obtained by the conversion of starch?

A. Yes sir, and I believe that the Century Dictionary is inconsistent with itself in saying that, because I quoted this morning
308 the definition the same the Century Dictionary gives for “sugar syrup.”

Q. Well, the Standard Dictionary says it is made commercially by treating starch with dilute sulphuric acid and the resulting solid product is called grape-sugar and the syrup glucose.

A. Yes sir, as they might speak of phosphoric acid being evaporated down and called a syrup, when it gets a consistency of syrup.

Q. Webster's Dictionary says: “Glucose: the trade name of a syrup.

A. Which Webster's is that?

Q. Are you acquainted with the special report of the census bureau of manufactures for 1905?

A. I don't remember that.

Q. An official document of the United States government, page 138, part I, states of industries: “Glucose, a thick syrup called glucose, made from corn starch.”

A. Yes, but I fail to find any dictionary definition for syrup by which glucose could possibly be included, except the broad definition in the Standard Dictionary which defines syrup as “a thick, sweet liquid,” which would include mucilage of acacia sweetened with saccharine.

Q. The Year Book of the department of agriculture for 1905, page 241, have you seen that? It is an article by Dr. Wiley on Table Syrups?

A. I have seen the book and I may have seen that article. I don't remember the article specifically.

Q. In which he says: “The chief ingredient of this mixed syrup is glucose, itself a syrup of fine body.” Have you seen that?

A. I may have seen it. I have seen that quotation.

Q. Who is this Dr. Wiley?

A. Dr. Wiley is chief of the bureau of chemistry of the United States department of agriculture and one of the members of the standards committee that adopted the standards in Circular No. 19.

Q. Well, in Europe, Germany in particular, and France,
309 where they make syrup out of potatoes, is called “potato syrup” isn't it?

A. Some times “potato syrup,” more frequently I believe “starch syrup.”

Q. Don't you find in the German works on the subject of glucose, practically all the time, it is referred to as potato syrup?

A. No, I believe more frequently as starch syrup.

Q. You think they apply both?

A. They apply both, but starch syrup I think is the most frequent.

Q. It is always denominated, however, as a syrup?

A. Starch syrup or potato syrup, mostly starch syrup.

Q. Is there a syrup called malt syrup?

A. Why, I have heard about that product, but it is not a syrup or any preparation that is consumed on the table. I don't think it comes on the market in this country for food purposes.

Q. Well, you very frequently have that term "syrup" applied to articles that are not consumed on the table, haven't you?

A. Yes sir.

Q. You went yourself to the work here that more properly relates to medicine to get a description or definition of this word, didn't you, here from the British Pharmacopœia?

A. Yes sir. That is intended as a standard for drugs. The British Pharmacopœia is a standard for drugs without any doubt.

Q. And you find that word syrup applied in a great many instances in drugs, don't you?

A. Yes, but never to glucose. When it speaks there of "syrup of glucose" that doesn't mean glucose, but it means a mixture of one part of glucose with two parts of simple sugar syrup.

Q. That doesn't answer my question. (Question read.)

A. Yes sir. There is a class of medicinal preparations known as "syrups" which are either simply a solution of cane sugar
310 in water which constitutes simple syrup, or such a solution flavored or medicated.

Q. Now, have you seen the United States Dispensatory of 1907 which treats of this subject of glucose?

A. I have seen the United States Dispensatory of 1907, yes.

Q. Have you noticed on page 1071 where it says: "According to the manufacture of glucose, when glucose syrup alone is desired, the process of conversion is stopped when the starch has disappeared, so that the syrup contains both glucose and dextrin."

A. I may have seen that.

Q. Isn't it a standard work?

A. The United States Dispensatory?

Q. Yes.

A. Yes, certainly, it is a standard work on drugs.

Q. Have you seen that quotation in there, that statement?

A. I am not sure—but I can produce the Dispensatory. I know that I looked in vain for the word—corn syrup in the United States Dispensatory and in the National Dispensatory.

Q. Well, now, isn't this work made a legal standard under the food and drug act—isn't that referred to in the food and drug act?

A. No, not even recognized as a standard for drugs. Only the United States Pharmacopœia and the National Formulary are recognized as standards for drugs.

Q. Where is that?

A. In the food and drug act of 1906. I have a copy here.

Q. You say that this is not a standard work?

A. I said it was a standard work. There are two dispensatories. The principal dispensatories published in the country are the United States Dispensatories and the National Dispensatory. Neither of them give the term "corn syrup." Both of them use the term "syrup" for any thick liquid. They describe glycerine as a "syrupy liquid."

311 Q. All of the standards that have been promulgated by the department of agriculture contain the word, in describing glucose, as "syrupy", describes it as "syrupy" doesn't it?

A. Oh, I wouldn't deny the use of the word syrupy in that sense, in the English language, but not as applied to a food product.

Q. Do you know any edible product which is used of the consistency of this what we call corn syrup or glucose that isn't called by the consumer a syrup?

A. As I stated before, I believe when the consumer calls for a syrup—

Q. No, you may answer that by yes or no.

(Question read.)

A. No, I think the consumer thinks he is getting a syrup when he buys something of that consistency, a true syrup.

Q. And he calls it a syrup, knows it as a syrup, recognizes it as a syrup?

A. No, he thinks, in my opinion, that he is getting the concentrated juice of a sugar producing plant.

Q. I am not asking you that? I am asking you if he doesn't recognize it as a syrup and know it as a syrup?

A. Yes, I think he thinks it is a true syrup.

Q. Now, referring to these patents that you say have been taken out for the manufacture of sugar from the corn stalk, do you know when those patents were taken out?

A. I do not. Mr. Kundert is looking that up now, to see whether we can get those patent records in the city.

Q. Was it something away back sixty years ago, or recently?

A. I wouldn't want to say with certainty as to that even.

Q. Are they the same patents that you referred to the other day when you were saying that they were proposing to make paper out of the stalk and sugar out of the other, supplementing and putting the two together in order to make it a profitable business?

312 A. No sir, I hadn't reference to any patents at all, but to investigations made by the United States Department of Agriculture.

Q. Do you know whether those are being made under certain patents that have been issued in recent years?

A. I don't know that, no sir.

Q. Do you know who they are being made by?

A. No, I don't know the persons who are making them.

Q. Have you ever seen anything about it excepting in newspaper

accounts—do you know anything about it except what you see in a newspaper?

A. I said that was the extent of my information as to those investigations.

Q. Whether they are successful or failures, you know nothing about?

A. I said that the other day, yes sir.

Q. Well, where do you get any other information about any patents that have been issued?

A. I didn't think the process had been patented. I thought that the United States government was doing that for the public good and giving it to the people of the country, that was my understanding of it, as they make lots of other investigations in the United States Department of Agriculture.

Q. But the progress of the investigations you know nothing about?

A. Except through those newspaper reports, not personally.

Q. Now, you referred here to certain analyses that you found in patent reports back in 1843 and 1844?

A. No, I don't think that there were any analyses in the patent report.

Q. No, they were referred to in the patent report for 1843 and 1844, which I believe then embraced the Department of Agriculture you said.

A. I don't think there were any analyses in there as I remember.

I think they were simply reports as to the practical manufacture of cane and corn syrup and corn sugar, without giving any analyses.

Q. I think you will find an analysis in there.

A. Perhaps; I don't remember. But there were abundant analyses in the department of agricultural reports for 1877, 1879, 1881 and 1882.

Q. Well, do you know that anything ever came out of those, the experiments that were being made at that time—weren't they abandoned?

A. I do not think that either corn syrup or corn sugar are on the market at the present time.

Q. Did you ever know if its being on the market as made from these stalks?

A. Certainly not extensively. It might be on a small scale, from farmer to farmer, or a farmer delivering it in the city.

Q. No, I am asking you commercially, whether that has been on the market as an article of commerce and trade, to your knowledge at any time?

A. Well, not on any large scale, certainly not.

Q. Do you know anything about it, whether it was ever on the market as an article of commerce on a small or large scale?

A. Why, I got the impression from the publication of the Commissioner of Patents that it was being sold perhaps by farmers locally in the village or something of that kind.

Q. When was that?

A. In 1843 or 1844.

Q. In order to get the sugar out of the corn stalks, you must take the stalk before the corn has ripened and been gathered?

A. As I stated this morning, the most successful yield of corn syrup was produced from sweet corn immediately after the sweet corn was taken for canning and——

Q. That answers my question, except in a roundabout way.

314 Mr. OLIN: He hasn't completed it yet.

Mr. FAIRCHILD: He could have answered it yes or no.

A. And I believe I have read from the report of the——

Q. You have answered the question, doctor?

(Question read.)

A. No sir, you must not.

Q. You must not take it before the corn is ripened and gathered? Now that's my question.

A. And I answered it, you must not take it—it is not necessary. You can take it either after it has ripened or before it has ripened.

Q. Now, would there be as much saccharine matter in it then as if taken when it is in the green before the ear has matured?

A. I was going to tell you that in the case of sweet corn the greatest amount of saccharine matter was found right after the sweet corn had been picked for canning. I don't remember exactly as to the field corn, but there was a statement there which I read that for two years they had successfully obtained 900 pounds of sugar per acre from field corn after the grain had thoroughly ripened.

Q. They said at the rate of that, didn't they, at the rate of 900 pounds?

A. Per acre—Oh, yes, certainly.

Q. It isn't stated there that they ever got over five pounds of sugar out of any experiment they ever made?

A. I don't know how much land they had under cultivation.

Q. Now, what I was getting at, doctor, was this, doesn't the sucrose—that is what you call the sugar in the corn, isn't it, in the stalk?

A. The so-called cane sugar.

Q. Doesn't that go into the ear when it ripens, practically, 315 a very *very* large part of it?

A. Oh, yes, that is doubtless the method in which the plant carries nourishment to the ear and changes that into starch.

Q. That being so, in order to get the sucrose out of the stalk itself, you must take it before the sucrose passes into the ear mustn't you?

A. That does not seem to be born- out by those experiments, because we can——

Q. Well, I am asking you if that wouldn't be your idea of it?

A. No, it wouldn't because I base my idea on those positive experiments.

Q. You haven't any opinion then outside of what you have read of those experiments?

A. I suppose the greatest strain upon the plant, the greatest working capacity of the plant would be at the time of the formation of the grain. How much sugar is left behind in the stalk after the grain is ripened is best shown by experimentation.

Q. Well, do you know about how much that is?

A. I gave you the results as published in the report.

Q. No, you haven't given us any results of any experiments after the grain was ripened.

A. Yes sir, those 900 pounds per acre referred to.

Q. That was green corn, wasn't it?

A. To settle that question I will read from that book.

Q. When I talked about corn that's ripened, I mean the corn that is ready to grow of itself as a seed, that is fully matured and hardened and ready as a seed; I am not talking about cutting it at any other stage.

Q. I referred to two experiments, one upon sweet corn, in which it is found that the largest yield of corn syrup was produced right after, or I suppose at the same time, coincident with the condition of the sweet corn when it could be picked for the market; then this other experiment, which was entirely different and was performed with field corn; it says: "Two years in succession sugar has been produced from stalks upon which the corn had ripened,"—I suppose *the* means ripened in the sense you say—"at the rate of fully 900 pounds per acre".

Q. Well, is there anything there in this report to show or do you know of anything which has been subsequently developed which would show that such a production as that would be a profitable production from the corn stalk?

A. A profitable production?

Q. Yes sir.

A. That would depend, as I argued the other day, upon competition, and I don't think such a product could be produced, certainly not in competition with glucose under the name of corn syrup.

Q. Well, it would have been produced long ago, wouldn't it, if it could have been produced in competition with cane.

A. I believe that if at the time of those investigations or a little later the beet sugar industry hadn't started in this country and if the glucose industry hadn't started in this country, which practically ruined the sorghum industry and the molasses industry and made possible this corn syrup industry, I think it might have proved a success.

Q. In any of these reports, doctor, do you find that the syrupy product from the corn stalk is called corn syrup?

A. Yes sir, I read from that this morning I believe.

Q. You read "corn stalk syrup".

A. No sir, I read "corn syrup" and "corn stalk syrup". On page 259 of the report of the department of agriculture for 1877 appears this sentence speaking of maize syrup and corn syrup: "Corn syrup should not be boiled to so great a density, but it may without detriment be reduced to as low a point as is indicated by a temperature while boiling of 236 degrees Fahrenheit to 239 degrees Fahrenheit".

Q. In the patent office reports of 1843 and 1844 it is referred to on page 450 as "corn stalk sugar and molasses". On page 138 of the patent office reports of 1844, it is there referred to as "corn stalk sugar".

A. Yes, I have seen the name "corn stalk sugar" which I think would be a correct one.

Q. On page 142 "corn stalk sugar and molasses".

A. Yes, I think "corn stalk sugar" would be a correct name, corresponding to "corn starch sugar" showing the source.

Q. Have you an article by Dr. Wiley in the Universal Encyclopedia and Atlas, volume 11, pages 195 and 196, on the production of corn sugar from maize and corn stalks?

A. Yes sir, I have.

Q. Have you got the work here?

A. I think I have. (Produced by witness).

Q. Have you noticed this statement by Dr. Wiley, referring to this subject: "In a small way and for domestic consumption, a fairly good syrup may be made therefrom (maize stalk). Enthusiastic promoters of enterprises for making sugar from maize stalk should be reminded that economically the task is a useless one so long as cheaper and better sources of raw material are available in practically inexhaustible supplies".

A. I have read that part of the article.

Q. Can you tell us what percentage you find of sucrose in the corn stalk after the ear has ripened?

A. I would have to look it up in the Year Book.

Q. You haven't any knowledge of it yourself?

A. Not definite enough so that I would want to testify to it.

Q. You would say that it would be over nine or ten per cent?

318 A. In the juice you mean?

Q. In the juice.

A. If I recollect rightly, it some times runs up to nine or ten per cent.

Q. That is the very extreme, isn't it?

A. You are referring now to sucrose I suppose.

Q. Yes.

A. That is the extreme, although there is in corn juice always a very appreciable amount of invert sugar present.

Q. Do you know what the taste of the extraction of the corn would be, to take the juice out of the corn, showing what the taste is?

A. Why, I have tasted it, the sweet corn. I have never tasted the other corn.

Q. Do you find any bitter taste to it?

A. Not that I recollect.

Q. Well, have you tasted it when it has been extracted in large quantities for the purpose of making any experiments with it?

A. I have seen a sample that was submitted to me by Dr. Wiley of the United States department of agriculture and I tasted that, but the sample was in a state of fermentation and I couldn't get a very good impression of it.

Q. Well, isn't it a fact that there are certain ingredients in the stalk itself, bitter elements in the stalk itself, that makes the juice as extracted bitter.

A. That would not be borne out by the reports on the subject, in this report of the commissioner on patents, because——

Q. 1843 or 1844?

A. 1843 or 1844, because they speak there of it as a very palatable product superior to the sorghum of the market and molasses of the market. I don't suppose the juice of the corn has changed very much since.

319 Redirect examination:

Q. Something has been asked you about the use of this term "liquid." Do you know of many foods that are in the form of a liquid that are not called that?

A. You mean thick liquids that are ordinarily called syrupy?

Q. Yes.

A. Malt extract would be one and condensed milk would be another, sweetened condensed milk.

320 CHARLES F. CHANDLER, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Professor Chandler?

A. City of New York.

Q. What is your age?

A. Seventy-two.

Q. Where were you educated?

A. At the Larn Scientific School of Harvard University and at the universities of Gottingen and Berlin in Germany.

Q. What official positions have you held in the line of your profession?

A. With the title of assistant I was put in charge of the chemical department of Williams College in the spring of 1857, was afterwards made professor, remained at that institution for eight years, and then went to New York and was made professor in the new School of Mines of Columbia University, which afterwards developed a broader institution known as the School of Applied Science. Was also made professor in the New York College of Pharmacy, I think about 1867 or 1868, a position which I still hold, having been president of that institution. It was taken into the Columbia University two years ago as one of the schools of the university. I was for about thirty years Professor of Chemistry in the College of Physicians & Surgeons.

Q. Of New York?

A. Of New York. I was made chemist to the health department in the city of New York about 1867, occupied that position for six years and was then made president of the board of health, a position which I occupied for eleven years. I was also chairman of the sanitary committee of the state board of health for three years, until I resigned.

321 Q. What is your position now, what position are you occupying now?

A. I am Professor of Chemistry in Columbia University and head of the chemical department.

Q. For how long have you been in that position?

A. I have practically held that position for forty-five years. This is the forty-fifth year.

Q. Are you still actively engaged in the work of your position?

A. I am.

Q. Lecturing constantly?

A. I give my regular complement of lectures and supervise the entire work of the department.

Q. Have you made a special study of food products from the standpoint of their purity, adulterations and nomenclature?

A. I have.

Q. When did you first begin this study and along what lines have you pursued it?

A. My first study in this connection was in 1862 I think, when I was called upon to make some analyses of liquors for the Vermont state liquor agency. My next special work in this connection was the general examination of liquors for the Metropolitan Board of Excise of New York. After I was appointed chemist to the health department I made a very careful investigation of the milk supply of New York and suggested proper supervision of that milk supply; also the subject of Croton water, the purity of Croton water, its proper preparation, and was consulting chemist to the Croton Aqueduct Department, with a view of protecting the water supply, discovering means of protecting the water supply of New York. As president of the board of health it was my business to pay special attention and have supervision of the sale of food in New York as far as the laws made such supervision possible. For instance, I

322 had a number of food inspectors under my direction who inspected all the meat and seized and destroyed spoiled meat or unwholesome meat or diseased cattle. We had to look after the slaughter houses and see that they were so conducted that the meat prepared there would not suffer in quality. We had a regular system of milk inspection and followed up the adulteration of milk. Had several litigations on the subject of the proper supervision of milk and the proper standards for determining the quality of milk. We inspected the fruit stands and seized and destroyed all unwholesome fruit and unwholesome vegetables. Then as a member of the state board of health and chairman of the sanitary committee, the general subject of food and food adulteration was frequently a subject of study. Later the national board of trade offered a prize for the best draft of a law for the prevention of the adulteration of foods and drugs, and I was one of a committee of three to read these law drafts and award the prize, which I did with my colleagues. None of these laws seemed to be entirely satisfactory and taking as suggestions the laws offered, I sat down in my laboratory with Colonel Prentice, the special counsel of the New York health department, and we prepared a draft which seemed to us to be as complete and

reasonable as could be drafted at the time, placed this in the hands of the national board of trade, and they secured the passage of it in New York state, and I think some other states, though I am not quite sure which states they were. After this law came on the statute books we endeavored to enforce it.

Q. We won't pursue that any farther. You have, generally speaking, been in touch with the study of and the literature in connection with this subject for how many years?

A. For over fifty years, in one way or another.

Q. Have you made a special study of the subject of sugar and the product commercially known as glucose?

323 A. I have.

Q. When did you begin the study of those subjects and along what lines did you pursue them?

A. I first studied sugar as a student at the German universities from 1854 to 1856, two years, attended lectures in which the subjects of sugar and glucose were discussed and specimens exhibited, and have a vivid recollection of seeing a large mass of grape-sugar made from starch, either in the lecture room at Gottingen or the lecture room at Berlin, I have forgotten which. I also in the laboratory at Berlin of Professor Rossa began to make tests and quantitative determinations of glucose as early as 1855. Ever since 1857 down to date I have taught chemistry and lectured upon chemistry, both generally, and for the last nearly forty years specifically in my classes lectured on industrial chemistry, and also gave regular courses of lectures at Union College on agricultural chemistry. Then I further had occasion to pay particular attention to glucose in my laboratory. In 1857 I had some medical students studying in my laboratory and I made it my business to make them familiar with the constituents of food and chemicals, and they prepared glucose, experimented with glucose. Then further, in the College of Physicians & Surgeons, we had a laboratory under the immediate charge of my son-in-law, Professor Bellieu, and we arranged a course of instruction there for medical students and had as many as two hundred medical students in a winter, and each medical student was required to prepare starch, to prepare dextrin, to prepare glucose, and subject these substances to various tests and experiments in order to ascertain their character. Further, I was appointed about 1868 chemist to the New York Sugar Refining Company, and immediately made it my business to learn the whole process of sugar refining. I held that position for many years and was sent to Europe in 1869 to study the subject of sugar refining and was fortunate in
324 gaining access to the best sugar refineries in Europe in Dublin, in England, in France, in Belgium and in Germany. I also in Paris visited a glucose factory where they manufactured glucose from potatoes and where they made a syrup, potato syrup, which was flavored with cane syrup, that is, with refiners' syrup. In 1872 I was employed by a firm of bankers in New York to investigate the manufacture of glucose, as they were considering the proposition of putting about fifty thousand dollars into the business.

Mr. OLIN: What year was that?

A. That was 1872. I carefully investigated the subject and advised them not to put the money into the enterprise.

Q. Did you visit at that time in that connection glucose factories?

A. I did, I visited the factory and saw the whole performance.

Mr. OLIN: You were employed by private persons to investigate, to see whether they had better go into the business?

A. Yes sir.

Mr. OLIN: That is the substance of it, was it?

A. That was the object. In 1883 I was appointed by the president of the National Academy of Sciences as one of a committee of five to investigate the whole subject of glucose and did so, and the report was published by the government at Washington. In 1886 I was engaged as an expert in the litigation brought by, I don't remember now who it was, but the litigation under what were known as the J. B. Beebe patents against Harry Hamlin and his company, on the subject of starch and glucose, and I visited the Buffalo Glucose works and studied the whole subject very carefully of making starch and glucose, and I visited the Peoria works and made a very careful study of every thing that was going on there. In 1904 I was called upon by a firm of bankers in New York to investigate the Kern process of refining sugar, as they contemplated financing the enterprise.

Q. I will ask you if this is a copy of the report made to the
325 National Academy of Science?

A. It is.

Q. Were you actively engaged in the investigations which are the basis of this report?

A. I was. All the samples collected were brought to my laboratory, and some of the analyses were made in my laboratory, some of them were made at Baltimore in the laboratory of Professor Remsen. The collecting of material was largely in my hands.

Q. Who were co-workers with you?

A. Professor George F. Barker of the University of Pennsylvania was chairman. The other members of the committee were: Professor William H. Brewer, who I think was the professor of agricultural chemistry at Yale College, I think that was his title; Dr. William Gibbs, of Harvard University, and Professor and President Ira Remsen, of Johns Hopkins University.

Mr. OLIN: You don't mean he was president then?

A. No, I don't think he was president then.

Mr. OLIN: No, he has been elected president within the last two or three years I guess. He has just recently gone to the Johns Hopkins University.

Q. Are you still a member of the National Academy of Science?

A. I am.

Q. That is made up largely of what class of men?

A. It has a membership of one hundred, and contains representatives of all branches of natural science.

Q. It is chartered by congress, is it?

A. It is chartered by congress, and a special provision in the charter provides that the members of the academy shall respond when-

ever called upon by officers of the United States government to make investigations and reports without compensation.

326 Q. What is this commodity known as glucose manufactured from for commercial purposes in this country?

A. Glucose consists of—

Q. No, I ask you what it is manufactured from in this country?

A. From corn.

Q. How long has it been manufactured from that article in this country?

A. I found it being manufactured in 1872. I don't remember how much earlier than that.

Q. Do you know of its ever having been manufactured in this country from anything else than corn?

A. I do not.

Q. Did you ever know of its being manufactured in this country from the starch of commerce?

A. Never.

Q. Now, I will ask you, professor, if the process of manufacture of glucose from corn is a continuous process from corn to glucose?

A. It is a continuous process from corn to corn syrup ready to put into packages.

Q. At any stage of the process of manufacture short of completion is the result or product a finished product? Is there any result at any stage a finished product for commercial use?

A. It is not.

Q. Is there a stage in that manufacture at which the article reaches called green starch?

A. There is.

Q. What stage is that?

A. That is the stage when the hulls and germs of the corn have been separated and the impure starch having been freed from those substances is ready for the next stage of the process.

Q. Now, what is the first stage of the process?

327 A. The first stage is steeping or soaking the corn in water in order to swell it up, and loosen it so that the kernels can be torn to pieces in the grinding apparatus. The corn is not, properly speaking, ground. It is put between stones which are sufficiently far apart to tear open the kernels without reducing the contents to powder. The next step is to separate the hulls and the germs from the crude, impure starch; in other words, to separate the coarser particles from the finer particles. When that is accomplished we have what is called green starch.

Q. What condition is that in at that time?

A. It's a wet mass.

Q. What is the color of it?

A. We have a dirty white, not pure white.

Q. Wet?

A. Wet.

Q. Are there any impurities in it?

A. Yes, quite a variety.

Q. What are they in general?

A. Well, it is hard to say. There are small particles of bran of the corn that haven't been removed. There is a considerable quantity of nitrogenous matter, protein substances, some dirt.

Q. Is the article one which could for any purpose be used, I mean in trade?

A. No. It is not. It is not a merchantable article.

Q. It is not a merchantable article?

A. No.

Q. From that point on is there a different treatment required for the production of glucose from that required for obtaining corn starch and laundry starch?

A. There is a totally different process.

Q. Is there a different process for obtaining corn starch from that obtaining laundry starch?

A. There is.

328 Q. What is glucose ordinarily obtained from in Europe or manufactured in Europe?

A. Usually from potatoes, but sometimes from sago, from rice, or even from tapioca—at least I have seen statements to that effect.

Q. You know yourself—

A. I know myself that potatoes are the usual material from which starch is manufactured.

Q. Is corn used in those countries at all?

A. I never heard of its being used, and it is my impression that it never is used.

Q. What is the article which we know of here commercially as glucose called in Europe—by what name is it known in Europe?

A. Potato sugar is a very common name for it, and in the liquid condition potato syrup.

Mr. OLIN: Do I understand that is the general name?

A. That is the common name for it.

Q. Do you know of it in the liquid form being called by any other name than potato syrup?

A. I don't remember any other name.

Mr. OLIN: Any other name than potato syrup?

A. Than potato syrup.

Q. Are you confining your statement now, professor, to any one country, or is that so all over Europe?

A. I think it may some times be called starch syrup.

Q. Do you know whether it is manufactured in that country or in any of those countries from the finished product commercially known as starch?

A. I am quite sure it is not.

Q. Do you know of its being manufactured from starch, as we understand the word commercially, in any country?

329 A. No, I do not. I think the manufacture of glucose, potato syrup, starch-syrup, is always a continuous process and is a different process from the manufacture of commercial starch.

Q. When the word starch is used in trade language, what is understood by that word?

A. Laundry starch.

Q. A finished product?

A. A finished product.

Q. Do you know whether in England the article which we call glucose here is known by the name of glucose—that is, some times?

A. I am not quite sure.

Q. Now, you have called this article corn syrup in one statement you made. Is that a proper designation for it?

A. I think it is the most proper, most truthful name that can be applied to it.

Q. Why would you say that?

A. Because it is a syrup and because it is made from corn and there is no other syrup that is made from corn.

Q. Or can be made?

A. Or can be made—commercially—practically.

Q. Now, how long have you known or do you know of, either personally or from your investigations, this article has been known as corn syrup?

A. I have no definite recollection when I first heard the term corn syrup, but in the investigations of the committee of the National Academy of Sciences in 1883 I know we found corn syrup to be one of the commercial designations of this substance, and it is so stated in the report.

Q. Where, do you remember?

A. It is on page 73 of this copy. I will state that there are two editions of this report. The edition which I have in my hand is the full report of the National Academy of Sciences for the year 1883, and it includes this report and a good many other things. I think the edition which the learned counsel for the prosecution has in his hand is a special edition in which the report on glucose is printed separately.

MR. OLIN: You happen to labor under a misapprehension. I am very glad to say we have just exactly the same thing.

A. I made the statement because I thought when you compared your copy with mine there was some hesitation to pronounce it the same thing, and I knew there was another edition. It is on page 73.

Q. What is the statement as made there?

A. The statement is made here that "Starch-sugar appears in commerce in a great variety of names, as follows: (a) the liquid varieties; glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose".

Q. Will you state whether there is a consensus of opinion among scientific men of note as to the propriety of this name for glucose in the country?

A. There is a consensus of opinion among the most distinguished chemists in the country that corn syrup is the proper name for this substance. I had in my possession letters from them to that effect which letters were presented and in connection with the report and some other documents which I myself wrote were placed in the hands of the commissioner of agriculture.

Q. At the hearing in which this decision was rendered that has been referred to here?

A. Yes, at that hearing.

Q. Can you give us a reference to the authorities that you have referred to recognizing this name as a proper one?

A. I can. Prof. Charles Baskerville, College of the City of New York, Prof. Marston T. Bogert, Professor of Organic Chemistry for Columbia University. Prof. William H. Brewer, 331 of Yale College, President of the Connecticut State Board of Health and member of the National Academy of Sciences. Dr. H. Carmichael, Chemical Engineer of Boston. Prof. Charles F. Chandler (I don't need to read that) Columbia University, member of the National Academy of Sciences. Prof. Irving W. Fay, Polytechnic Institute, Brooklyn. Dr. A. H. Gill, Massachusetts Institute of Technology, Boston. Prof. C. H. Goessman, Massachusetts Agricultural College, Amherst, Mass., who I might say was for many years the manager of a sugar refinery in Philadelphia. Prof. Walter S. Haines, Rush Medical College of Chicago. There are two reports which are not in this collection of mine here, because the writers of them preferred that they should be in a sense private communications to the secretary of agriculture. One was Prof. Richards of Harvard University, member of the National Academy of Sciences, and one was Prof. Chittenden of Yale College, the great physiological chemist; he is a member of the National Academy of Sciences.

Q. Are their opinions given?

A. I haven't them here.

Q. They are not attached as a part of this document that you hold in your hands?

A. No. Prof. Charles Loring Jackson of Harvard University, member of National Academy of Science. Prof. Ralph W. Langley, Flower Hospital of the New York Homeopathic College. Dr. Ernest J. Lederle, formerly President of New York Board of Health. Prof. J. W. Mallet, University of Virginia. Prof. Charles E. Monroe, George Washington University. Prof. S. P. Sadtler, formerly President of the University of Pennsylvania. Prof. Charles R. Sanger, Director of the Chemical Laboratory, Harvard College. John A. Sherer, Analytical and Consulting Chemist, Specialty Sugar Analysis, New York. Prof. Henry C. Sherman of Columbia University, 332 who was formerly connected with an agricultural experiment station and has charge of instruction in food analysis. Prof.

Edgar F. Smith, University of Pennsylvania, a member of the National Academy of Science. Prof. Thomas B. Stillman, Stevens Institute. Charles Wesley, formerly with the American Glucose Company in Buffalo. H. J. Matz, Warehouse Superintendent of the New York Glucose Company, and Albert H. Fisher, Superintendent of the syrup department of the New York Glucose Company.

Q. State whether you have known this article to be called commercially "corn syrup" since the date of that report, continuously?

Mr. OLIN: The date of which report?

Mr. FAIRCHILD: That he had in his hand a moment ago. 83.

A. I have heard the name from time to time.

Q. Will you give us some of the reasons, if there are any, other than those you have already mentioned, why the word "corn syrup" is the proper and the preferable name for that article?

A. In the first place the name syrup has been given to solutions of glucose ever since glucose was discovered, practically. It was in 1811 when Kirchhof discovered the process of making sugar from starch. I find that as early as 1813, two years later, an article was published in the bulletin of the Society for the Encouragement of Knowledge, in Paris, entitled "Starch Sugar and Syrup," and in following down the technical literature from that time to this—

MR. OLIN: I object to this unless the witness can refer us to the books and pages where we can examine them, as I take it, if I am right, if wrong the witness will correct me, the witness is reading a list of authors prepared I think by him at a former time and submitted to the secretary beginning, according to my record here, on page 13. Am I right?

A. You are right.

MR. OLIN: Now, we think we should be referred, if he is going to refer to these authorities, to the volume and page.

333 Q. You have the volume, haven't you?

A. The volume and pages I will give you in this list, and I will cheerfully provide counsel with a copy of the list.

Q. Well, you might, when you are referring to these different authorities, refer if you can to any volume or book in which they may be found.

A. They are all arranged chronologically and the volumes are stated.

MR. OLIN: The volume and page is stated, is it, in each case?

A. The volume and the page is stated in every case.

MR. OLIN: And you are simply confining yourself to this statement here?

A. I am. I didn't intend to read the list. It is several pages. I was simply referring to that first publication which I found and going on to say that following down that list—I might further say, that this isn't a complete list by any means; this is a list which I compiled in my own laboratory in an afternoon. I presume I could have found twenty times as many references if I had thought it desirable. So in 1813 I found the earliest reference in which the term syrup was applied to the sugar prepared from starch.

Q. You stated in tracing the literature down from that time?

A. In tracing the literature of the subject. In 1813, the same year, I found an article by Bouriart in which he speaks of "starch sirups" and "potato-sirups."

Q. That is in what?

A. That is published in the bulletin for the Society for the Encouragement of Arts. In 1816 I find a patent for preparing "malt-syrup." In 1833 I found an article in the Journal for Practical Chemistry on Syrup by Action of Malt or Sulphuric Acid on Starch.

Q. I was going to ask you how many authorities had you compiled

or can you directly refer to now on that subject? I don't know but it is just as well to go right thru. I think I will. Go right
334 thru the list.

A. There are forty-five of them here, beginning with 1813 and ending with 1907.

Mr. OLIN: I object to it as not being competent, but if it is competent, if he is going to simply read what is in that list, you might cut matters short by just offering those pages.

Mr. FAIRCHILD: Well, I will do that. I will cut them right out.

Q. I show you, professor, Exhibits 168 to 172, inclusive, contained in "Copies of Opinions of Chemists and Others on the Meaning of the word "syrup." That publication or book covers a list of the chemists and scientists that you have referred to as designating this article properly as a syrup.

A. The list does.

Q. Have you the opinions of others or the opinions in any other form than in this list that you have given us here of any of these?

A. This list I have given you is the list I have made up from the technical literature.

Q. Have you any correspondence with any of the persons mentioned in that list or others on this subject?

A. No, not on that list. I have copies of all the letters which were prepared by those different college professors and technical chemists whose names I read. I have them here, with the exception of the letters of Professors Chittenden and Richards.

Q. Are these letters in this same publication?

A. These letters are in this same publication.

Q. Where?

A. They follow the list. The list is the first thing after the title page and the letters follow alphabetically immediately after the list.

By Mr. OLIN:

335 Q. You don't mean the letters follow alphabetically, you mean the letters follow along of these men, the names were arranged alphabetically I guess, doctor.

A. Yes, I mean the letters were placed in the alphabetical order of the writers.

Q. Are they? Then it is my mistake. Beginning on page 1 with Baskerville's letter?

A. Yes, page 1.

Q. And ending?

A. And ending with Fisher's letter on page 42.

Q. Well, that is an affidavit, isn't it, Albert H. Fisher?

A. Yes.

Q. They end on page 41 and those pages include your preparation?

A. Yes sir.

By Mr. FAIRCHILD:

Q. I will ask you, professor, to refer to pages 1, 2, 3, and 4 and

to pages 19 to 34 inclusive and ask you whether you know those to be the opinions of the persons purporting to have signed them on this subject?

A. I do.

Q. Are those men who purport to have signed these statements eminent in their profession?

A. They are.

Q. I see that some of them sign their names without their titles. I will ask you if those men, such for instance as Ernest J. Lederle, is a scientific man capable of speaking on that subject authoritatively?

A. Dr. Lederle was graduated at the School of Mines of Columbia University as a chemist—

Mr. OLIN: I object to this. It seems to me he could answer this question by yes or no.

Objection sustained.

336 Exception by defendant.

A. I answer the question yes.

Mr. FAIRCHILD: I offer in evidence pages 1 to 4 inclusive and 19 to 34 inclusive.

Mr. OLIN: I would like to ask the witness a question or two before they are received.

Court: You may do so.

By Mr. OLIN:

Q. Doctor, you stated that these various men whose names you read entertained the opinion the same as you do that the term "corn syrup" was a proper term to be applied to this article, as I understood you—is that right?

A. I think I made that statement. That's my opinion. Of course there is a difference in the wording of these different letters.

Q. Is your statement as to their opinion based mainly on these letters which I understand you have received and have been referred to here?

A. It is in the case of many of them, but not with all.

Q. But that is true generally, isn't it?

A. It is true probably of more than half of them.

Mr. FAIRCHILD: Mr. Olin, I perhaps can shorten that up a little by instead of offering all those, confining it to certain ones.

Mr. OLIN: I think if you offer any of them, you had better offer the whole of them.

Mr. FAIRCHILD: Well, I will withdraw that offer and offer certain specific ones. I offer the one on page 2, Prof. Marston T. Bogert; the one on page 22, Prof. Walter S. Haines; Prof. Charles Loring Jackson on page 23; Prof. J. W. Mallett, page 26; Prof. Charles E. Monroe, page 27; Prof. S. P. Sadtler, page 28; Prof. Henry C. Sherman, page 32; and Prof. Edgar F. Smith, page 33.

337 Mr. OLIN: We object to it as incompetent and immaterial.
Court: Why incompetent?

Mr. OLIN: Why, it is hearsay.

Court: Are you objecting because the original letters are not produced?

Mr. OLIN: No. But it is unsworn testimony.

Objection overruled.

The letters so offered and received in evidence were marked Exhibit 173 to 180 inclusive.

Exhibits 168 to 180 inclusive are hereto attached and made a part hereof.

By Mr. FAIRCHILD:

Q. What have you to say in regard to the name "syrup" as a proper name to be applied to this commodity?

A. It is a proper name. It is a solution of sugar. It is a thick solution of sugar. And that is what a syrup is. It has been customary from my memory to call a thick solution of sugar, whether it contained sugar alone or whether other substances were associated with it, it has been customary to call it "syrup."

Q. How is it in the common, every-day parlance in regard to the use of such a term as that as applied to an article used for table use, prepared for table use?

A. It's a common name for thick solutions containing sugar for table use.

Q. Will you state, doctor, the sources from which glucose or what we call dextrose may be obtained?

A. Glucose, including dextrose, occurs as the sweetening agent of most all fruits. It applies to the pear, apples, peaches, cherries, grapes, strawberries, raspberries, all common fruits, owe their sweetness to glucose, partly dextrose and partly levulose. This sugar also occurs in all fruit preserves and jellies and it often happens—

338 COURT: When you say "this sugar" what are you speaking of?

A. Glucose. And the cane sugar that is used in putting up preserves is often converted into dextrose and levulose before the preserves are consumed. In my early experience at home I have often seen my mother empty a jar of preserves into a kettle, because, she said, they had "candied." The dextro-glucose had crystal-ized out and the preserves had to be heated in the kettle in order to dissolve the crystals of dextrose and bring them into solution. All fermented fruit juices contain dextrose and levulose, that is, glucose. Grape wine owes its sweetness to this kind of sugar. Cider owes its sweetness, when it has any, to this kind of sugar. Honey contains this sugar, and it often behaves like the preserves and becomes thick and almost solid by the crystallization of the dextrose. It can be brought into a condition of fluidity again by applying heat in order to dissolve the dextrose in water. Even maple sugar, and probably maple syrup, contain dextrose and levulose. I noticed an analysis by Wells, the great sugar chemist, in which he found 13.95 per cent of glucose in maple sugar. It is really the most widely distributed

sugar in nature. It occurs in a greater variety of fruits and plants probably than cane sugar.

Q. Could it be produced from many of these or all of them that you have referred to?

A. It could be produced from all of them. It wouldn't pay, because corn is so much cheaper.

Q. Now, but my question was from what sources could glucose or dextrose be obtained?

A. It might be produced from any of these articles that I have mentioned?

Q. Now, what other things?

A. Corn, potatoes, sago, rice, tapioca, any other starchy product, wheat, rye, oats, barley, buckwheat, it might be produced
339 from any of them.

Q. Are there still other sources?

A. Hundreds of others—chestnuts, horse-chestnuts.

Q. Might it be produced from wood fiber?

A. It might be produced from wood fiber, from cellulose. Any form of cellulose may be transformed into dextrose.

Q. You say cellulose, what is that in common parlance?

A. Cellulose is vegetable fiber. It constitutes the skeleton of all plants. It is known to us most familiarly as cotton and linen and also wood fiber.

Q. After it has been made into linen cloth, could it be made from that even?

A. It can. I have seen it made in my laboratory from linen.

Q. Do these publications refer to its being made from sawdust?

A. It has been suggested, and it has been made as an experiment, but never economically.

Q. I don't mean that, but can it be produced?

A. It may be produced from sawdust, because that is vegetable fiber.

Q. Now, what enters into or enter into the article glucose as we knew it commercially?

A. Dextrin, maltose and dextrose. Maltose and dextrose are sugars. Dextrin is a gum.

Q. Now may dextrin be converted into dextrose?

A. Oh, yes. It is the first result of the transformation of starch in the process of making sugar from starch.

Q. That is, dextrin is?

A. Dextrin and maltose, and last of all dextrose. Dextrose is the final product, and if the process of treatment is continued long enough the dextrin and maltose will be entirely converted into dextrose. If the process is interrupted at an intermediate stage,
340 then there will be a certain percentage of dextrin and a certain percentage of maltose not yet converted into dextrose.

Q. Now, you have referred to dextrin as a gum. Is it in any proper sense or may it in any sense be termed a mucilage?

A. No. I think the statement that mucilage is a normal constituent of corn syrup is a gross perversion of the facts of the case. As we understand mucilage, it is an offensive, impure form of dextrin

which is kept on desks in paste pots and becomes more or less offensive. That dextrin was never purified. It is an impure and often a more or less decomposed form of dextrin. It isn't the same substance that exists in corn syrup. Corn syrup contains dextrin without the impurities that are contained in the commercial dextrin. Commercial dextrin is usually manufactured by sprinkling starch with dilute nitric acid and putting it into ovens and subjecting it to a temperature of between three and four hundred degrees Fahrenheit. The nitric acid acts upon the starch and converts it more or less completely and at the same time the heat acts upon the starch and between the heat and the nitric acid the starch is more — less completely converted into dextrin. This is then sold.

Q. That is commercial dextrin?

A. It undergoes no process of purification. Whatever impurities were in the original starch and whatever nitric acid is left in it and whatever products have resulted from the nitric acid, they all remain in it. The only thing that is ever done to the dextrin is to grind it into powder. It is sold generally in the form of a powder, some times nearly white, and some times quite dark colored.

Q. Is dextrin a healthful food product?

A. Dextrin is one of the most common articles of food that we consume. Every loaf of bread is coated with a crust, which is rich in dextrin, often as much as 18 per cent. and when the bread is made up into small loaves and finger bread, by which the amount
341 of crust is increased, of course we get a much larger percentage of dextrin than we do when the bread is baked in loaves. Toasted bread is very rich in dextrin, because the bread has been cut into thin slices and the entire surface and edges of the slices have been exposed to a high temperature before the fire, and the starch has been largely converted into dextrin. The physician knows this and when his patient is convalescing and can take a little nourishment one of the first forms of food which he gives him, because it is so easily digested, is toast tea, which is made by steeping slices of toasted bread into hot water; the result is that the patient gets a solution of dextrin.

Q. Now, in the making of glucose is it essential that dextrin should be contained in it in that form in order that it should remain in the syrupy form?

A. It is. In the early history of the glucose industry that wasn't understood, and in the report of the National Academy of Sciences in 1883—

Mr. OLIN: I don't see why there is any need of spending time on such a matter at that, when Dr. Fischer plainly stated the same thing.

Mr. FAIRCHILD: Yes, and he held out the idea that it was a mucilage, and I wanted to combat that idea. Finish your answer.

A. It was not mentioned in that report, because at that time the members of the committee were not aware of the fact, and they knowing that dextrin was not a sugar regarded its presence in the glucose as unnecessary and as diminishing the amount of sugar.

Q. A quotation was made from that report here yesterday to that effect, was it?

A. Yes, that was the quotation. But later I learned that in putting liquid glucose on the market it was found that the entire mass solidified in the barrel and when the dealer attempted to draw
342 glucose from his barrel nothing would run out. That was investigated, and it was found that by leaving in the glucose a certain percentage of dextrin the crystallization of the dextrose was prevented. So it is absolutely necessary to have the dextrin in the glucose, otherwise it wouldn't remain a syrup, but would solidify.

Q. Now, in making a perfect sample of anhydrous sugar, state whether the dextrin is all removed and converted into dextrose.

A. It is. There is no dextrin in pure dextrose, where they desire to have it crystal-ize.

Q. Will you examine that and state whether (bottle shown witness)—

A. It looks like crystal-ized anhydrous dextrose.

Q. Is this anhydrous sugar an article of commerce?

A. It is.

Q. Is glucose recognized among scientific men as a clean, healthful, nutritious food?

A. It is.

Q. For man?

A. It is.

Q. Do you know how refiners' syrup is obtained?

A. I do.

Q. How is it obtained?

A. In refining raw sugar, the first step in the process is to dissolve the sugar in boiling water then clarify the solution, strain it through bags, filter it through bone-black, boil it down in a vacuum pan, in order to crystal-ize out as much as possible of the pure sugar. The product, which then consists of crystals of sugar and molasses or syrup, has to be strained in some way. That is some times accomplished by putting it in molds, where it solidifies into the old-fashioned loaves; some times it is put into a centrifugal machine; but in either case, the mother liquor, as we call it, that is, the syrup,
343 drains out and leaves the crystals behind, and those crystals are subsequently washed with a solution of pure sugar and they constitute the pure white loaf sugar, which is nearly one hundred per cent cane sugar. Now, the mother liquor or the syrup that drained away from those crystals is boiled down again and filtered through bone-black and again subjected to crystallization, when it produces a sugar not so white as the original, a sugar which is known in commerce as C Sugar and contains about eighty-seven per cent of sugar, 3.85 of glucose, and the rest foreign substances, and ash. That is a light colored sugar. Now, that is drained, the mother liquor or second syrup from that is again boiled and filtered over bone-black and crystal-ized a third time. That produces the third crop of sugar, which is yellow sugar; sticky, soft, yellow sugar, which contains nearly five per cent of glucose and the rest other substances and water. The molasses or syrup that drains

away from that, which is the third molasses in the sugar house, is not capable of furnishing any more sugar in the form of crystals, so that is boiled and filtered over animal charcoal or bone-black and concentrated, and that constitutes refinery syrup. So the refinery syrup is the third molasses after three successive crops of sugar have been extracted, which is refined and put on the market, and put on the market as refiners' syrup. This is the information that I gained when I was chemist in the sugar refinery in New York, and the figures I gave are the figures of my own analysis which I made at that time.

Q. Do you know anything about the article in Johnson's Encyclopedia on sugar?

A. Yes, I wrote it.

Q. When was that?

A. I don't know exactly. I began to write those articles in 1873, and I forgot how long the work continued.

Q. Were they added to from time to time?

344 A. I looked at the article to see if I could ascertain the date and I could not. I introduced at the end of the article various authorities on sugar and I thought perhaps the dates of them would indicate, but from time to time I made changes and additions to this article as new editions of the book were published, and consequently those dates gave no real information. I found an article quoted there as late as 1885, but the article itself must have been written nearly ten years before that.

Q. Now, I will ask you whether this refiners' syrup may appropriately be called a cane-syrup?

A. Certainly, and it is the only cane-syrup I ever saw in all my experience, the sugar-house syrup, or the plantation molasses.

Q. Have you seen the standards contained in this Circular No. 19 as put out by the secretary of agriculture?

A. I have.

Q. Have you got a copy of it with you there?

A. I have.

Q. Will you refer to page 10 please, and under the head of "Syrups," the second paragraph is "Sugar-Cane Syrup is syrup made by the evaporation of the juice of the sugar-cane or by the solution of sugar-cane concrete, and contains not more than thirty per cent. of water and not more than two and five tenths per cent ash." And then you will notice in the second subdivision of the paragraph immediately preceding the paragraphs headed "Syrups" a definition of "Refiners' Syrup." What have you to say about this definition of sugar-cane syrup as distinguished from refiners' syrup?

A. I say in the first place I never saw or heard in all my experience as a sugar chemist of any such syrup.

Q. As what?

A. As the sugar-cane syrup described in that second paragraph under "Syrups." In the second place—let me see, how does the question read?

345 (Question read.)

A. In any case, it is no more cane-syrup than the refiners'

syrup is cane-syrup. They are both made from the sugar-cane. They both derive all their constituents from the sugar-cane.

Q. Suppose you should stop at your first process that you mentioned a moment ago at which you obtain a syrup, would that be such a syrup as is referred to in that second paragraph under "Syrups"?

A. No, it would not, because the cane-syrup referred to in that second paragraph is stated to be either the concentrated juice from which no sugar has been extracted, or else it is made by dissolving sugar-cane concrete in water. Now sugar-cane concrete is a special product—

Q. How is that?

A. It is made, or was, I don't know that they make it just at present, but years ago it was made by evaporating the juice of the sugar-cane to dryness, in the same way that they evaporated the maple juice to maple sugar. It wasn't made by a process of crystallizing out, but was made by just boiling down the juice of the sugar-cane until it became solid. That was called "concrete."

Q. Did I understand you to say that refiners' syrup is just as much a cane-syrup as the one mentioned here in this bulletin as sugar-cane syrup?

A. Certainly, just as much; always understood as a cane-syrup.

Q. Has cane a flavor?

A. It has no flavor. I have eaten it myself and there is not any flavor about it. It is just sweet, plain sweet, like a lump of sugar.

Mr. OLIN: Is that meant to apply to molasses too?

A. The sugar-cane, the cane itself.

Q. Now, I will ask you if in the process of manufacture a flavor is imparted to the residual syrup?

A. Yes, there is a flavor imparted to it during the process 346 of manufacture.

Q. How is that imparted?

A. It is brought about partly by the action of heat and partly by chemical changes that take place in the material during the processes of evaporation, filtration, etc.

Q. Can you give us some idea how that might be brought about?

A. Every one knows that if sugar is exposed to heat it acquires a yellowish brown color and produces what we call caramel. That is a substance which is made in the kitchen and used for sauces on puddings and such things; we caramelize sugar or burn sugar. Then there are various nitrogenous substances in cane-juice and raw sugar, and no one can tell exactly how they react upon each other or upon the sugar to bring about the development of this flavor. But the flavor is developed in the process of concentrating and preparing the solutions which ultimately yield and produce the syrup.

Q. Is that flavor in any sense of the word imparted by the bone-black?

A. The bone-black is only a purifying agent. The bone-black never adds anything to the solution, but it takes things out of the sugar solution. It is used as an agent for extracting. Not only color-

ing matter, but gummy substances, nitrogenous substances and mechanical salts, such as sulphate of lime, are extracted by the bone-black.

Q. What is this bone-black?

A. Why, it is nothing but charcoal made from bone. It contains nothing that it could possibly impart to a sugar solution, except the first time it is used there is a little salt in it, very little indeed, but a trace of common salt which would dissolve in the first lot of sugar or water; it might be washed out before the bone-black was used on the sugar solutions at all.

347 Q. Now, as this bone-black is used from one batch to another in the making of the sugar, is it cleansed and re-prepared?

A. Oh, yes, it is very carefully washed with water, often washed with dilute hydrochloric acid and then washed again, and some times it is subjected to fermentation in order to free it from the various impurities which it extracted from the solution; finally it is dried and put into kilns and heated red hot, so that if any impurities from the sugar are not extracted in washing, they would be destroyed by the heat.

Q. Now, would the "cane-syrup" referred to in the second subdivision of the paragraph "Syrups" on page 10 and "Refiners' Syrup" have the same flavor?

A. Substantially the same, the only difference being that the cane-syrup would have had only one evaporation, while the refiners' syrup would have had three or four.

Q. Now, can you illustrate that in any way so as to give us a more definite idea of what you mean?

A. Well, I mean this, that syrup made directly from the cane by boiling down the juice would only have an amount of flavor due to the boiling down and the development of the flavor corresponding to the amount of sugar that's in it, corresponding to the amount of sugar that is actually in it; but the refiners' syrup, being the third mother liquor in the refinery, would contain the flavor corresponding to all the sugar that had been taken out, for instance, say sixty-five per cent of the sugar in the sugar-cane had been sent to the market as pure white loaf sugar, all the flavor that was associated with that sugar remains behind in the syrup; then they take out the second crop of sugar, and a great deal of the flavor corresponding to that amount of sugar also remains in the syrup, and so on, and so the flavor is concentrated in the refinery syrup. That is the
348 reason why the refinery syrup has so much more flavor than plain cane-syrup could have made by simply concentrating the juice of the sugar cane.

Q. The same flavor but a stronger one?

A. The same flavor but a stronger one.

Q. Concentrated?

A. Concentrated.

Q. Now, does the sugar itself have this cane flavor?

A. None at all. After the sugar is purified no one can tell the difference between maple sugar or sugar made from the sugar-cane

or from the sugar beet. When it is absolutely pure there is no distinguishing one from the other.

Q. Now, in the manufacture of glucose they use this same process, do they, the bone-black process?

A. They do. They give the glucose a thorough filtration through bone-black filters. They even give it a more thorough filtration than they would the sugar solution of the sugar refinery, because it has to be made absolutely colorless. It is pure white to a higher degree than the syrup of the sugar house; every trace of color is taken out of it. They even put it through three successive bone-black filters in order to complete this operation, and this not only takes out the color, but it takes out almost any other impurity that could get in it; it would take out the sulphate of lime should there be any there, and it would remove any acid that might be there. The glucose which has been through bone-black can not contain any free acid, because the bone-black itself would absorb any free acid that might be present.

Q. Now, what do you say in regard to the flavor of glucose and the taste, of the idea that a flavor could be imparted by the bone-black?

A. Why, if bone-black could give flavor to a sugar solution, the glucose ought to have more flavor than the refinery syrup.

Q. Well, do you find any flavor in it?

349 A. Why, it has no flavor and it has no color, while the refiners' syrup is dark colored and highly flavored.

Mr. OLIN: May I ask, doctor, in all this testimony recently here you have been using the term glucose, whether you mean by that term to cover commercial glucose?

A. Commercial glucose.

Mr. OLIN: And that, you say, has no color, no flavor?

A. Well, substantially. I don't mean to say that you don't know that you have got something in your mouth when you put the glucose into your mouth, but no substantial flavor, and no substantial color when it is fresh. Of course it does acquire color. If it is kept long enough it gradually acquires a little color. It wouldn't acquire it if the manufacturer was allowed to leave a little sulphite in it, but that is not permitted any more and consequently the glucose gets a little off color in time—in fact almost everything does.

Q. While we are on this subject I will call your attention to the definition of syrup on page 10 of this bulletin number 19 and ask you what you have to say in regard to the propriety of that definition of syrup?

A. It's a new departure in the English language. That was never known as a definition of syrup until it was put forth by Dr. Wiley at Washington and put into this bulletin of standards, and it does not correspond to the English language or to custom or commercial usage for a hundred years, in the English language or the French language or the German language.

Q. Do you read the French and German language?

A. I read them freely. My library is made up of French and German more perhaps than it is of English books.

Q. So you are familiar with the literature on that subject?

A. I am, and as a sugar chemist I have made a special study of everything relating to sugar.

350 Q. Well, now why would you say that was not a proper nomenclature or definition of syrup?

A. Because it throws out almost everything that was called a syrup and only includes—well, practically the only syrup there is that it would include would be maple syrup. That's a definition to include maple syrup. I don't think for the moment of any other syrup that would comply with that definition of syrup.

Q. Would it include sorghum?

A. Oh, sorghum, yes, I forgot sorghum. Sorghum and maple syrup would comply with it, and if there were any syrup made from corn stalks that would comply with it; but of course there is none, never has been commercially? Some abandoned experiments were made in that connection thirty or forty or fifty years ago. So that maple syrup and sorghum syrup are the only syrups that would comply with that designation.

Q. Now, what have you to say in regard to what is said in the second subdivision of the preceding paragraph in regard to refiners' syrup, as to the consistency between the definition of syrup in the following paragraph and the definition of refiners' syrup?

A. The definition of refiners' syrup is incompatible with the definition of syrups.

Q. Why?

A. Why, because it just says the opposite. The definition of syrup says, "without removing any of the sugar", whereas refiners' syrup is defined as "the residual liquor from the raw sugar after the removal of most of the sugar". It makes two separate and distinct definitions for syrup. One syrup has had no sugar removed from it, and the other syrup has had nearly all of the sugar removed from it. Of course there are some qualifying words in the paragraph. Under "Refiners' Syrup" it is described as "the residual liquid product obtained in the process of refining raw sugar." But

351 the word "syrup" comes in, the word "syrup" is applied in both cases giving two different and distinct meanings to the word "syrup", independent of the process by which it is made. In the one case the syrup contained all of the sugar there was in the natural juice and the impurities, the foreign substances, would be in minimum quantity and the flavor in minimum quantity. In the other case the syrup contains a minimum of the original sugar and a largely exaggerated percentage of the soluble constituents of the original juice.

Q. I call your attention now to the fifth subdivision of paragraph headed "Syrups" and ask you if that definition "sugar syrup" is compatible with the definition of "syrup" in the first subdivision in the paragraph?

A. No, that is different again. That makes a third liquid quite different from either of the others which is denominated syrup, and all three of those syrups are made from sugar-cane, generally; of course that last one, number 5, might be made from beet sugar.

COURT: What is that?

A. Sugar syrup, made by dissolving pure sugar in pure water. It is a sugar that is used in medicine.

Mr. OLIN: Contains not more than 35 per cent water?

A. Yes, contains not more than 35 per cent water.

Q. Is corn syrup so called any less wholesome than maple and cane syrup?

A. Not at all. It is just as wholesome as cane syrup, just as nutritious, just as wholesome.

Q. Just as nutritious you say?

A. Just as nutritious, just as wholesome, just as digestible, in fact, if anything, more so, because it is to a certain extent predigested and cane-sugar before it can be absorbed in the system has to be converted into glucose. The process of digestion converts the sugar of the cane or the sugar of the beet into glucose; and the same way with the starch we eat, it has to be converted into glucose before it can be absorbed into the system".

352 Q. Is there any particular food value and if so, in what respect has it value in dextrin?

A. Dextrin has the same food value that maltose, glucose, cane-sugar and starch possess. They all of them belong to the class of carbohydrates and they all have the same food value, practically. One is as good as the other as far as its composition as food is concerned.

Q. Does it furnish any particular thing?

A. It furnishes heat and energy and fat. Of course none of these substances contain nitrogen and consequently none of them can be employed in the animal economy for producing muscle or nerves or brain. They are fat producers and heat producers and energy producers.

Q. Is refiners' syrup a waste product?

A. No.

Q. What do you say in regard to its food value?

A. It has a food value in proportion to the amount of sugar it contains—sugar and glucose.

Q. As glucose is manufactured in this country now, does it contain any deleterious substances or poisons or anything of that nature that would be harmful?

A. It does not.

Q. It has been referred to here that arsenic has been found in beer produced from glucose. What do you know about that?

A. I know about all there is to know about it. I have all the publications of the English government on the investigation, preliminary reports and evidence taken, etc. It seems that by an accident a sulphuric acid manufacturer, I don't know, there may have been two, I have forgotten whether there was one or two manufacturers, received a supply of iron pyrites from a different mine or a different part of the mine than usual, and never dreaming
353 ing that it contained arsenic never having been troubled with the presence of arsenic before, they used it in their regular course of business and they manufactured some sulphuric acid which

contained arsenic, and some of that sulphuric acid was sold to one or two glucose makers and they, never dreaming of the presence of any appreciable quantity of arsenic, used it in their business, and the glucose contained a little arsenic and that was used in making beer and it did considerable harm.

Q. Is that the only case you know of?

A. That is the only case I ever heard of. But some curious things developed in the investigation. They found that the barley hop and the malt contained arsenic, that hadn't any sulphuric acid or glucose attached to them. They afterwards found out there was a little arsenic in coal—

Mr. OLIN: Well, we don't pretend that there may not be arsenic in other articles.

Recess until 2 P. M. January 1, 1909.

JANUARY 1, 1909.

Direct examination of Professor CHANDLER resumed by Mr. FAIRCHILD:

Q. I will ask you when bone-black is used in the manufacture of glucose is there any ash in it?

A. Bone-ash.

Q. Yes.

A. Well, bone-black is not bone-ash.

Q. Well, that is what I am asking you.

A. They never use bone-ash in refining sugar, or refining glucose. They use bone-black. That is another thing altogether.

Mr. OLIN: We don't claim that bone-ash is used. We claim that by the use of bone-black the ash in very largely increased as a result in the refiners' syrup.

A. That isn't true.

354 Q. I will ask you if there is anything unwholesome or impure in the refiners' syrup?

A. Nothing whatever.

Q. Why do you say that?

A. Because I know it from having worked in a sugar refinery for years and analyzed any number of samples of syrups.

Q. What reason can you give for their being no impurities in it?

A. Why, the raw sugar to begin with has no impurities in it that are not taken out during the process of refining, and the agents employed in refining the sugar don't add to it any impurities.

Q. What percentage of sugar is there in refiners' syrup?

A. Of course it is variable, but this analysis I selected as an average analysis of refiners' syrup when I wrote my article on sugar.

Q. The one you made yourself?

A. It is the result of comparing a great many analyses. The amount of cane sugar was 34 per cent; the amount of glucose was 28 per cent; organic matter 8; mineral substances 2; water 28; adding up a hundred.

Q. It was suggested that all the nutritive qualities of the corn are not in the corn syrup or glucose. I ask you if corn syrup con-

tains all the nutrition that may be contained in a syrup made from corn?

Mr. OLIN: I object to that as getting nowhere and not meeting any issue in the case. We are not claiming that they hadn't put into this product nutritive elements that would be in the glucose as made from the corn.

Court: Read the question.

(Question read.)

A. It does.

Court: The answer may stand.

355 Q. Is the same true of any syrup that is made from any material out of which it could be made—does it contain all the nutrition that is in the article from which it is taken?

A. It does, unless in the process of purification some constituents which might serve as food are removed in order to improve the taste or quality of the product. For example, there are nitrogenous substances in raw sugar which might be regarded as nutritious if eaten, but they give the sugar an unattractive appearance and to a certain extent an unattractive taste, and in order to fit the sugar for market, make it acceptable to the public as an article of food, it is customary to purify it. We have this state of things in a great many articles of food, as, for instance, bread. Bread does not contain all the nutritive matter of the wheat by any means. Intentionally, to satisfy the demands of the public, the consumer, the coarser constituents of the wheat, which are really nutritious and might support life without any other article of food, are eliminated, simply to give the food a more attractive and more digestible condition.

Q. Are you acquainted, doctor, with Thorpe's Dictionary of Applied Chemistry?

A. I am.

Q. Is that a standard work on chemistry?

A. It is. I often consult it.

Q. Are you acquainted with Watt's Dictionary of Chemistry?

A. I am.

Q. Is that a standard work?

A. It is. I often consult that.

Q. The New International Encyclopedia of 1903, are you acquainted with that?

356 A. I have seen it several times.

Q. Do you know whether that is a standard work or recognized as a standard work?

A. It is.

Q. Are you acquainted with the Universal Encyclopedia of 1900?

A. I have seen it occasionally.

Q. Do you know whether that is recognized as a standard work?

A. It is.

Q. Johnson's Revised Universal Encyclopedia, are you acquainted with that?

A. I am.

Q. Is that recognized as a standard work?

A. It is.

Cross-examination by Mr. OLIN:

Q. Doctor, you have referred to some opinions that were submitted to the secretary of agriculture, a copy of which you have produced and referred to a number of letters here. Did you have anything to do with gathering the opinions?

A. I did.

Q. Did you write to various persons and submit to them a form of letter which the Corn Products Company had either prepared or you had prepared for them and then asked them to give their opinion?

A. I wrote my own letters to those gentlemen. Not always the same letter to each. Several of the gentlemen I saw personally.

Q. And these opinions were obtained in answer to your letters?

A. Some of them.

Q. Most of them?

A. Most of them.

Q. Could you name those that were not obtained in answer to your letters?

A. The letters from Harvard University were obtained by my associate, Professor Bogert. There was so little time—

357 Q. Well, I don't care about unnecessary detail, any explaining. Any others that were not obtained in answer to your own personal letters?

A. It is rather hard for me to tell now.

Q. Well, I don't care, if they were substantially all in answer to yours other than you have stated, that will answer my purpose?

A. I think they were, substantially. There were two or three there which were obtained indirectly, not directly.

Q. You were employed by the Corn Products Company I presume for that work?

A. Corn Products Refining Company.

Q. Could you tell us about the date of your employment?

A. Well, I can't exactly. I was engaged in studying the subject for five or six months, if I remember right, when the subject was first brought to my attention?

Q. Under their employment?

A. Yes, they asked me to. They asked me to look into it for them.

Q. That extended over the hearing at Washington before the secretaries?

A. Yes. Began some time before that.

Q. And that employment ceased how long after that? That hearing commenced, according to the records so far, December 5, 1907.

A. Well, I don't remember. In one sense it didn't cease, because it was soon after that that I heard that this suit was to be brought in Wisconsin, and I was given to understand that my presence was desired, so that I have had the subject on my mind ever since it was first brought to my attention.

Q. Would I understand from that that your employment has continued substantially from the time you were first employed up to the present time?

A. One might say yes and might say no to that. I have
358 no regular employment.

Q. I don't mean that it takes all your time, doctor.

A. No, I wasn't thinking of that, but I am not under salary.

Q. Well, I didn't mean that of course. That is, you distinguish from a salary and compensation in other ways?

A. I do. A salary is a continuous, regular payment for services. My custom is to charge for services when I have rendered them.

Q. A good many books have been referred to here dealing with this subject of glucose, and some I think you have referred to, using the term corn syrup. Now, doctor, it is true, isn't it, that any standard work dealing with the subject of glucose would be apt somewhere in the book to state all of the names under which it might be sold?

A. No, I don't think it is, for the reason that the persons who write books oft-n have little to do with buying and selling and they don't know all the names under which articles are sold in a great country.

Q. I am speaking of such works as those prepared by Mr. Leach and by Mr. Allen that have been referred to, Mr. Blyth, Mr. Kenney, and such works as that.

A. Those Englishmen wouldn't be likely to know the names that things are sold under in America.

Q. They would know the names that things were sold under in England, would they not?

A. Well, I don't think corn syrup finds a sale in England. They don't make it in England.

Q. It is certainly not known in that country under that name any way, is it?

A. I don't remember. It is possible that some of those English books may have the name corn syrup in them.

Q. Don't you regard Mr. Leach as a standard work?

359 A. Well, Mr. Leach has written one of the last books on analyzing food. I suppose he is entitled to have his book called a standard work.

Q. Do you regard Alfred H. Allen's as a standard work?

A. Yes, Alfred H. Allen is one of the most prominent persons in that branch of chemistry—commercial analysis.

Q. You regard him then as high authority?

A. High authority. As an Englishman of course, and he writes in England.

Q. There is also an American edition, isn't there?

A. Well, they call it an American edition, but it was written in England and it is an English book. They have a way now of putting out books both in America and England and saying they are published in both countries, which is true in that sense, but when a book is written in England by an Englishman it is an English book and not an American book.

Q. Do you know Henry Leffmann or of him?

A. I have heard of him. He lives in Philadelphia.

Q. Professor of Chemistry and Metallurgy in the Wagner Free Institute in Philadelphia?

A. I have heard of him.

Q. Do you know that this book you have spoken of so highly of Mr. Allen's is, according to the title page, here stated to be the "Third edition, illustrated, with revisions and addenda by the author and Henry Leffmann, A. M. M. D. etc."

A. Yes, the Philadelphia publisher gets some local person to put his name on the title page, that is all it amounts to.

Q. I didn't ask you that, doctor, but do you wish to have the impression left here that Henry Leffmann is a man who would permit his name to be used in that way?

A. Oh, that is very common. Sir William Ramsey—

360 Q. Do you know anything about this as a matter of fact, this case?

A. No.

Q. Then I think perhaps we had better omit it.

A. Except that I believe the American edition is substantially identical with the English edition.

Q. Will you turn to this compendium of opinions which you have, to page 16 of the compendium, being a part of the brief or argument prepared by yourself and already introduced in evidence. Now you are here, seeking, are you not, to state in chronological order the different authors and writers who have recognized the term corn syrup or other names under which this article is sold?

A. Not all of them. A few that I happened to run across.

Q. My question is, so far as you were representing them at all or stating them it is for that purpose?

A. It is.

Q. And that you gave all of them?

A. It is for that purpose.

Q. Now, as to this author your statement is, isn't it: "Alfred H. Allen, Commercial Organic Analysis London & Philadelphia. Speaking of glucose says the term is restricted to syrup preparations. States that the following grades are recognized: 'glucose, mixing glucose, mixing syrup, corn syrup'." You state that, don't you?

A. I do.

Q. That is the only thing that you state from that author on the subject, isn't it?

A. It is.

Q. Now that author states, does he not, on page 359, this: "Starch glucose occurs in commerce in several forms, varying from the condition of pure anhydrous dextrose through inferior kinds of solid sugar, to the condition of a thick, syrupy liquid resembling glycerin, which contains a large proportion of dextrin".

361 A. Yes, that's there.

Q. Now, further on the page and in a footnote in fine print it says, does it not—just read it.

A. "In America the term glucose is restricted to the syrupy preparations. The solid products being distinguished as grape-sugar.

The following grades are recognized: Liquid varieties; glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, and confectioners' crystal glucose."

Q. Now, that statement there is in effect, is it not, a copy of the statement contained in the so-called academy report on page 73? If you will turn to your copy of that report, as I will have to refer to that again. It is really a copy from that, isn't it?

A. I don't know that it is. It may have the same names, but I don't know that he got them from this. He may have got them from the same source we did.

Q. This book, last edition, is of what date, do you know? Here, 1905. Do you know whether or not that is the only place in this entire work where the author refers to this product under the name of "corn syrup".

A. I do not, but the most part of his work is devoted to entirely different subjects, all sorts of things.

Q. It also, does it not, considers quite exhaustively glucose and the various forms in which it is manufactured?

A. He says something about them, but that is a book on methods of analysis. It is chiefly devoted to methods of analysis.

Q. On page 312 this author states: "Starch glucose is very extensively employed in the manufacture of confectionery, but its use seems wholly unobjectionable unless its nature be misrepresented". He is there dealing, is he not, with the commercial product?

A. He is.

Q. And you are quite familiar, are you not, with this work?

A. Well, it's a book I have on my book-shelf and I consult
362 it whenever — think I can get information from it.

Q. Now, isn't it your recollection, doctor, that that is the only place in his work where he mentions this terminology?

A. I think very likely it is the only place where he undertakes to give commercial names for glucose. He wouldn't repeat it on every page.

Q. Do you wish to say that that is the only place where he speaks of commercial glucose?

A. I don't mean to say that that is the only place where he speaks of commercial glucose, but I say it is probably the only place he felt it necessary to put in the different names employed in commerce for liquid glucose. It would be unnecessary repetition to put it in again and again.

Q. You don't mean to say that this author himself uses that or that he thinks that that is a proper term for this product?

A. No, I don't think he says so. He says it is one of the names by which it is known in commerce.

Q. Speaking of it as one of the names in America, in this footnote.

A. Yes.

Q. Right below this on the same page you have this statement, have you not, page 16 of these opinions, under date of 1899: "U. S. Dispensary, page 1175, Speaks of solutions of glucose as syrup". You have that, haven't you?

A. That's there.

Q. I hand you that dispensatory of that year and on that page and will ask you if you will be so kind as to read from it the portion I have included in lead pencil brackets on that page.

A. "According to the statements of Professor H. W. Wiley (N. P. September 1881) the daily consumption of corn for sugar and syrup making was at that date not far from 35,000 bushels, but since
363 that time it has greatly decreased. The term glucose is applied to the syrup, and this appears "while the grape-sugar is limited to the solid substance from the same source."

Q. Was the last part of it there a quotation from Wiley?

A. It don't appear to be. There is a period. It really isn't quite clear how much of it was quoted from Wiley. It may or may not have been quoted from Wiley.

Q. You have made a very extensive study I understand, doctor, of this study of glucose and its manufacture in this country as well as abroad?

A. Well, my study of the manufacture abroad consists simply in what I have observed in books and one visit to a glucose factory in Paris in 1869.

Q. Well, I had more reference of course to this country, and theoretically more to abroad. Are you familiar with a publication entitled "Statistics of the Glucose Industry in this Country", gotten out by the Glucose Sugar Refining Company of Chicago, Illinois in April, 1898?

A. I never saw it and I never heard of it.

Q. You didn't know that there were two letters in the book quoted as coming from you?

A. No, I did not. I can't imagine what letters I ever wrote that could be quoted.

Q. Oh, I forgot one thing, doctor. When you sent out these letters to the different eminent chemists in this country for their opinions, did you send a letter to Dr. Ira Remsen of Johns Hopkins?

A. I did.

Q. You didn't get any reply, did you?

A. No. He thought it was bad policy for the president of the university to interest himself in such subjects.

Q. He is regarded, is he not, as one of the most eminent chemists in the country?

A. He is.

364 Q. And was on this same committee with you in 1883 and 1884?

A. He was.

Q. And that report was a unanimous report?

A. It was.

Q. He is the author, is he not, of several books?

A. He is.

Q. In his chosen field of work?

A. He is.

Q. This is a book that may be referred to later on several times be-

fore we get through, but I refer you now, doctor, to page 70, which purports to contain a copy of a letter from you.

A. I don't remember of writing the article, but my sentiments are the same now that they purport to have been on November 30, 1894.

Q. You haven't any doubt but what the letter was written by you I suppose?

A. No, I think it probably correct.

Q. I now show you another letter at a later date, April 11, 1898, purporting to have been written to Thomas Gaunt, Esq., General Manager of Glucose Sugar Refining Company of Chicago, Illinois.

A. That's a letter I am proud of.

Q. Well, you wrote it, didn't you?

A. I think I did. It sounds like me.

Q. And you wrote it in answer to a request from this company for your opinion?

A. I don't remember the circumstances. There must have been some reason for writing it.

Q. You have no objection to my reading these two letters I suppose?

A. Not at all.

Q. The first one reads:

"SCHOOL OF MINES, COLUMBIA COLLEGE,
NEW YORK, November 30, 1894.

I fully concur with Dr. Dawson in the opinion above expressed in regard to the healthfulness of glucose, and I want to say further that since 1882 when I carefully investigated the subject as a member of the committee of the National Academy of Sciences, appointed at the request of the United States commissioner of internal revenue, I have not been able to learn anything which would lead me to modify the opinion we then expressed in that report with regard to the healthfulness and value as an article of food of glucose".

That is your opinion now?

A. It is.

Q. You didn't say anything about "corn syrup," did you?

A. No. I presume if I was written to for an opinion the word "glucose" was probably used in the letter and I used the same word in replying.

Q. Will you glance at Dr. Dodson's letter.

A. Edson is the name.

Q. Edson, yes.

A. He was president of the health department at one time.

Q. Just glance at his letter, pages 47 and 48, and not to take too much time, just enough to satisfy yourself whether he wasn't dealing with the commercial glucose as well as with the starch-sugar so-called.

A. But these letters are in answer to some inquiry.

Q. Certainly.

A. And I presume the word glucose was used in the letter of in-

quiry, so in answering it we used the same word the person write in inquiry.

Q. You have no other explanation to make of it?

A. No.

Q. Then I will read the next one, under date of April 11,
366 1898:

Thomas Gaunt, Esq., General Manager Glucose Sugar Refining Company, Chicago, Ill.

DEAR SIR: In reply to your favor asking me if I have seen any reason to change the opinion which I expressed a good many years ago as a member of the special committee of the National Academy of Sciences, appointed at the request of the treasury department to investigate the subject of glucose or grape-sugar, I would say that although I have kept myself informed upon this subject, nothing has occurred and no facts, chemical, physiological or sanitary have been published which in any way indicates that the opinion arrived at by our committee was not absolutely correct. You will remember that our committee carefully investigated this subject, examined the different factories where glucose or grape-sugar is manufactured, studied carefully all the processes in it, saw made analysis of all the products, and made experiments upon the use of the products in different ways, and we could not find the slightest reason for supposing that under any circumstances grape-sugar or glucose is in any way objectionable as an article of human food. I would say further that the same statement applies to starch whether made from corn or made from wheat. The old story alleging that grape-sugar or glucose is unwholesome because deadly acids are employed in its preparation is simply ridiculous. I have never known of any reputable chemist finding any such acid in either grape-sugar or glucose. In conclusion I will say that there are no articles of food to be found in commerce less liable to suspicion than the glucose or grape-sugar sold in the United States.

Very respectfully yours,"

Q. You refer back here I see again to the investigation by this committee of the Academy of Sciences, doctor, and say nothing has occurred to change your opinion. That's right, isn't it?

367 A. That's right.

Q. And that report dealt with both the liquid article and the solid article?

A. It did.

Q. And you cover here both in your letter and intended to?

A. And intended to.

Q. Now, there was no mention in it at all, in 1898, of the term corn syrup?

A. No, I didn't undertake to give a catalog of the names by which it is known.

Q. I didn't ask you that. Now, to refresh your recollection after reading this second letter, don't you recall that there was a movement on foot, stirred up by somebody down at Washington that had

made an attack on the glucose industry of this country as being used as an adulterant, and that there was a movement before congress to have a tax imposed on the manufacture of glucose so as to control it and bring it under the national law, the same as oleomargarine and that this pamphlet was gotten up by the glucose manufacturers of the country as against that bill?

A. I didn't know anything about it whatever, except that I received letters and answered them. I never heard of that movement.

Q. Isn't it a fact that all through the report of this National Academy of Sciences the liquid form of the starch or sugar is constantly called glucose and the solid form grape-sugar?

A. Those terms are used.

Q. Are they not the only terms used in the entire report except on that page 73 that I have already called your attention to and will come back to later?

A. Well, I should have to look through the book to find out whether that is true. I will say in that connection, if you will permit me, that the chemist in speaking of the whole
368 subject often uses the word glucose as a collective word, because to the chemist the solid product is just as much glucose as the liquid product. The distinction between glucose and grape-sugar and these other names are commercial distinctions, and when a chemist speaks of a subject of this kind he generally uses the terms which are familiar to chemical literature and not technical commercial literature.

Q. Do I understand then from your remark that the terms are more technical in commercial literature than in chemical literature?

A. Yes. The commercial names of all food products are more familiar to commercial literature than they are to scientific literature.

Q. Well, to save time, doctor, I want to hurry along all I can in justice to the importance of this case, I wish you would be so kind as to look through this report again before you leave and, if you can, point out any other place where that term "corn syrup" is used in that report excepting on page 73 and perhaps on page 81, which I will call your attention to later, where the term "maize syrup" is used, I wish you would please do so.

A. I think I can answer that. I doubt if the word- corn syrup is used anywhere else. The letter requesting us to investigate this subject called for an investigation of "glucose" and naturally we used the word glucose in writing our report, as that was the word employed by the party requesting the report.

Q. Is that your explanation? Will you turn to the letter that called upon you for that investigation?

A. That's my recollection.

Q. Well, the record is the best I think. On page 66, and I will read a part of the letter from Green B. Raum, the first paragraph, to the treasury department: Sir: There is now pending before congress a bill H. R. 3170 'to tax and regulate the manufacture and

369 sale of glucose,' which bill proposes to amend the internal revenue laws as to impose a special tax upon the manufacturers of and dealers in glucose and to levy a tax on the article in its solid, liquid and semi-liquid form."

A. Well, glucose is the word used there.

Q. Yes, I know, but it also specifies "in its solid, liquid and semi-liquid form," doesn't it?

A. Yes, but it says that glucose is a name for all three of them.

Q. Now, did you, as expert scientist call attention in that report any where that that was not the proper term to be used, in your discussions?

A. We mentioned the different terms that were used in commerce.

Q. I have already called attention to that, and you mentioned this term corn syrup in just that one place?

A. Yes.

Q. And in doing that the only object you had in view was to state to the public that you had found the article manufactured or claimed to be manufactured by one person who called it corn syrup?

A. Oh, no, there was nothing about any one person. We found it was one of the regular commercial names for liquid glucose.

Q. Let us pass that for the present, doctor, for I want to come back to it; perhaps there is a little misunderstanding there. You claim that this report of the Academy of Science recognizes or was intended to recognize "corn syrup" as a proper designation of this article glucose?

A. I do.

Q. Then will you turn to page 76 of this same report, where you are speaking of the uses of starch sugar you say: "Third, as a substitute for cane sugar in confectionery; and fourth, for the adulteration of cane sugar, to which it is added to the extent of twenty or more per cent." You didn't wish, did you, in making that statement, to have it understood that you sanctioned the use of the article for adulteration purposes in that way, did you?

370 A. The paragraph is headed "Uses of Starch Sugar," and it is further stated that it finds extensive application for a great variety of purposes as substitutes for cane sugar—

Q. Please answer the question.

(Question read.)

A. I did not.

Q. You are simply stating the history of what you found.

A. The fact.

Q. Now, doctor, you have given on pages 13 to 17 inclusive of the pamphlet already introduced in evidence what may be called a bibliography of works on the use of the term corn syrup or other names to designate this article, haven't you?

A. That bibliography was for the purpose of showing the continuous use of the term "syrup" to designate solutions of sugar from starch.

Q. Now, I want to put this question to you, is there in this entire bibliography a single work that you find mentioning on the title

page anything which indicates that the book or its contents treats of the subject of "corn syrup"?

A. Without carefully looking at every one, I find three authorities at once who speak of "grain syrup made from grain." Whether that grain was corn or not I can't quite tell.

Q. Will you please read the question to the doctor?

(Question read.)

Q. That is, as indicating, or do they use the term "corn syrup" as indicating the contents or subject of the book or work?

A. Well, here is Payen's Chemistry, 1855, he constantly speaks of glucose in solution or liquid form as "sirup" and he gives the name "sirup of starch" and "sirup of grain." Now, whether that grain was what we call corn or not I can't say.

Q. Well, do you understand that exactly as my question calls for?

A. You asked me if I found corn and I am giving you the
371 nearest answer to that that I can.

Q. Now, there are various works, are there not, in this country and foreign countries on the subject of glucose?

A. There are a few books that are devoted exclusively to "glucose."

Q. Do you know of any book that is devoted to "corn syrup"?

A. No, I never saw a book that is devoted exclusively to "corn syrup."

Q. Wherever the word grain is used in this bibliography, it is in some French work?

A. It is.

Q. You don't find any such thing either in any English works on the subject or in any German works?

A. I think I have Allen in here. Why, yes, there is Thorpe's Dictionary, 1905, uses the name "corn sugar." It doesn't say "corn syrup." There is Leffmann's book, 1905, which says, "Glucose is often termed "corn syrup."

Q. Where is that?

A. That's on the top of page 17.

Q. You have read that in Leffmann, haven't you?

A. I have.

Q. You don't mean that Leffmann himself pretends that that is a proper term to designate glucose?

A. I didn't discuss the question of propriety. This was a list of books in which we found the term "syrup" applied to "glucose."

Q. That is not in the title of the book, is it?

A. No. It is a general book on various subjects.

Q. Wasn't your purpose here, doctor, in this collection and in those quotations to indicate to the secretaries at Washington that these authors were in favor of designating this product as "corn syrup"?

A. Nothing of the sort. The object was to show the extent to which the use of the word syrup has prevailed in the last
372 hundred years for "glucose."

Q. Did you think it would show the extent to which it

was used by simply quoting that from a leading author and not indicating at all what the author's book as a whole said upon that subject, as to whether it was a proper term or not to use?

A. Nothing was said about its being a proper term. It was a definition of the word syrup which it was attempted to limit to solutions of cane sugar, and this list of authorities was to show that the word "syrup" had been applied to solutions of glucose ever since glucose was discovered a hundred years ago.

Q. Now, the work is Food Analysis by Leffman & Beam.

A. I suppose so. My title is "Select Methods in Food Analysis."

Q. Now, I hand you the book, page 125, and I will ask you to read that paragraph marked, then I want to base a question on it.

A. The paragraph is headed "Glucose." "Commercial glucose consists principally of dextrose with considerable maltose and gallisin and some dextrin. In trade the term "glucose" is restricted to the syrup; the solid is called "grape-sugar." Inferior qualities of glucose may contain sulphurous or sulphuric acid, calcium sulphate, arsenic and lead. Glucose is often termed "corn syrup." "

Q. Now, I will ask you to state whether that isn't the only place in that entire work where that term "corn syrup" is used?

A. I can't say.

Q. Have you looked through the book to examine?

A. I have never looked the book through.

Q. Would you consider the term "evaporated cream" as a proper term to use to designate condensed milk?

A. No I should not.

Q. It was for a great many years, wasn't it, by manufacturers quite largely used?

A. Not to my knowledge.

373 Q. By some of them, claiming it was their trademark?

A. Not to my knowledge.

Q. I show you again page 222 of Leffman & Beam and ask you to just glance at it and see whether he doesn't so state.

A. Under the head of "Condensed Milk" he says: "The form of condensed milk called evaporated cream, consists merely of whole milk concentrated to about two-fifths of its bulk.

Q. That I believe you say is a leading work?

A. I never said so. I consider this man a crank.

Q. You don't regard Leach as a crank, do you?

A. I don't know much about Leach.

Q. But you wouldn't want to call him a crank?

A. No, because I don't know enough about him to know whether he is or is not a crank.

Q. Although his work today is regarded as the leading authority on food analysis in this country, or one of the leading authorities?

A. Some people may think so.

Q. I infer from that that you do not. Are you acquainted with Julius Frankel's works?

A. I don't remember him.

Q. Isn't he a leading authority?

A. I think I have that work.

Q. He has a book on "A Practical Treatise on Manufacture of Starch Glucose, Starch Sugar, and Dextrin" hasn't he?

A. I think I have that book. I wouldn't be sure.

Q. That doesn't speak of corn syrup?

A. Probably not. It is a German book.

Q. Well, you said, I believe, that generally speaking in Germany the term applied to this product was "potato syrup."

A. Frequently applied.

Q. Didn't you say the most frequently applied?

374 A. I don't remember my exact language, but I found a great many authors who used the term "Kartoffel sirupe" which is "potato syrup."

Q. You may glance through pages 13 to 17, if you don't already know and state whether or not it isn't a fact, excepting a few of the earlier books, that the term almost invariably used in German works is "starch syrup?" I concede from your statement that the term "potato syrup" is used a few times, but aside from those few exceptions, just to shorten the thing a little, it is already in, take the last page, doctor, the later work there, Von Raumor, H. Luerig, Matthes & Mueller, Richard Meyer, Varges, Ost.

A. Well, it happens that those on the last page, with the exception of the last one, don't mention potatoes.

Q. Call it starch syrup, don't they?

A. Call it starch syrup.

Q. And Koenig is a leading author, isn't he?

A. Koenig has compiled several editions of analysis of food which he has picked up all over creation, put them into a volume, a sort of a dictionary of analysis.

Q. And you quote him, on page 16 as giving this term "starch syrup, don't you?

A. Yes, he is one of those who mentions it under the name of starch syrup.

Q. And at the bottom of that other page is "starch syrup" from Professor von Lippmann?

A. Yes, says "starch syrup."

Q. Isn't that probably the best book on the subject of sugar?

A. Well, that is a very good book. There are a great many others.

Q. Right above that you have Albert E. Leach. Lesh you have. It should be Leach?

A. Yes.

375 Q. Chemist of the state board of health of Massachusetts, "Food Inspection and Analysis." He speaks, does he not, of "starch or corn syrup"?

A. He does.

Q. And in the one place that has been referred to I think by Professor Fischer, you called one man a crank, there is Mr. Leach, you will see on page 146 he speaks of "evaporated cream" doesn't he?

A. I don't catch sight of the expression "evaporated cream" here.

Q. On the other page I think.

A. Yes, the term "evaporated cream" appears there.

Q. Now, you speak of Dr. Frankel as being a German author. There is also an edition of his work edited by Robert Hutter, is there not, chemist and practical manufacturer of starch sugar, proprietor of the Philadelphia Starch Sugar Works, that I hand you?

A. I have seen it before.

Q. He doesn't use the term "corn syrup" does he?

A. I don't know. I never have examined the book to ascertain. It is labeled on the back as written by Frankel & Hutter. It was really written by a man named Wagner originally.

Q. I hand you this same pamphlet again entitled "Statistics of Glucose Industry" and a man who prepares an article in that under the name of T. Austin, on page 59, takes the liberty of quoting from an article of yours. I wish you would read it, two or three sentences there, from an article of yours in some encyclopedia, and state whether that is a correct representation of your article?

A. I have no reason to doubt it, but I can't verify it without making a comparison.

Q. Will you read it please.

A. "Professor Chandler, President of the New York Board of Health writes of 'syrup' in Johnson's Encyclopedia." Now comes the quotation: "One or two establishments prepare a syrup
376 made by combining sugar-house molasses with glucose prepared from Indian corn, which is entirely harmless."

Q. Do you find such a term defined in either Webster's International Dictionary, the Century Dictionary or the Standard Dictionary of the English language as "corn syrup"?

A. I don't remember.

Q. Well, you have examined these dictionaries, have you not, carefully, doctor?

A. No, I didn't examine them.

Q. You examined them carefully enough, did you not, to get in this brief that you prepared for the three secretaries at Washington the dictionary definitions?

A. I think there may be some such definitions there. I have forgotten them.

Q. Found on page 7.

A. Those are references to show the use of the word "syrup."

Q. Yes. Now, in order to show the use of the word syrup I presume you wished to show to the secretaries as accurately as possible the correct definition of the term when you quoted from the dictionaries, didn't you—wasn't that your object, doctor?

A. The object was to show that the term "syrup" was in common use for solutions of glucose, and that was all.

Q. You understood, didn't you that the object of that hearing was to determine, if possible, the proper nomenclature to be attached here to this article?

A. A ruling had been made—

Q. Just answer the question.

A. That this was not syrup—

Court: Just answer the question.

(Question read.)

COURT: I think that you can answer that by yes or no.

A. I will say yes to that.

377 Q. And as aiding them in that, you quoted from the Standard Dictionary, "Syrup, a thick, sweet liquid," didn't you?

A. I did.

Q. Right after that quotation from the Standard Dictionary comes, does it not, the following: "Specifically: 1. A saturated solution of sugar in water often combined with some medicinal substance or flavored as with the juice of fruits, for use in confections, cookery, or the preparation of beverages."

A. I don't remember whether it is there or not.

Q. Well, if there you omitted it?

A. Of course we were not talking about that kind of syrup.

Q. "2. The uncrystallizable portion of any saccharine substance, as sugar-cane juice, separated from the crystallizable sugar during the process of sugar-boiling, or that which drains from sugar in the process of separating or refining; called molasses by planters." You didn't state that, did you?

A. No. That was not involved in the issue.

Q. Well, the contention made on the part of Dr. Wiley and those agreeing with him was, wasn't it, that the term syrup should be applied to those articles which are commonly understood by the people as having been made from the juice of a sugar producing plant?

A. That's a new distinction in the English language which Dr. Wiley tried to establish.

Q. Well, that was the contention?

A. Yes.

Q. And you knew that this definition bore out that contention?

A. It doesn't bear it out.

Q. "3. The condensed cane juice before separation of the crystallizable sugar: so called specifically by planters." You omitted that, didn't you?

A. I did.

378 Q. You knew that such definitions as those did not include glucose, didn't you?

A. They have nothing to do with glucose. The object wasn't to prove that other things ought not to be called glucose, but simply that glucose should be called syrup.

Q. Well, you knew that those definitions would exclude glucose?

A. No.

Q. Do you think now that glucose would come under either of those definitions?

A. Those are other kinds of syrups. A cane-syrup product is called a syrup. There is no reason why a glucose product shouldn't be called a syrup.

Q. Wouldn't mucilage of acacia if sweetened with some artificial saccharine substance come under your first definition, "a thick, sweet liquid"?

A. It isn't my definition, but it would come under that definition.

Q. Wouldn't glycerine come under that definition?

A. No, that isn't understood to be a syrup.

Q. What was your definition this morning and what is it now of a syrup?

A. It's a thick solution of some kind of sugar. Any other liquid which is thick may be called syrupy, because it is thick——

Q. I didn't say syrupy.

A. But it wouldn't be properly a syrup, not in a commercial sense.

Q. Glucose wouldn't come within that definition, would it?

A. Why, certainly it would.

Q. Don't it contain some substance that is not sweet and is not a sugar?

A. It isn't necessary that it should be all sugar.

Q. That you didn't have though in your definition as you
379 just — it, did you?

A. Well, I wanted to make a short, sharp definition I didn't exclude things that were not sugar.

Q. This morning you did go farther and say that although it included other substances not sweet, it would properly be called a syrup, didn't you?

A. Certainly. I say it now.

Q. You didn't entertain that opinion when you submitted this brief to the three secretaries, did you?

A. I don't know.

Q. Look at pages 5 and 6 of this compendium and see whether you haven't changed your definition between these two dates?

A. I think not. I say that any thick, sweet liquid is a syrup, no matter what kind of sugar it contains.

Q. Yes, no matter what kind of sugar it contains.

A. Well, that doesn't exclude things that would be associated with the sugar.

Q. You proceeded then to develop your idea, did you not: "It might contain either one of the following sugars or contain two or more of them at the same time," then you specified, did you not, cane-sugar, first?

A. Yes sir.

Q. Then you specify: "With dextrose found with levulose in the sweet acid fruits, such as apples, peaches, pears, currants," etc. Then you specify "levulose found as above mentioned"?

A. Yes sir.

Q. "In association with dextrose."

A. Yes.

Q. Then you specify "maltose"?

A. Yes.

Q. "Produced by action of malt on starch."

A. Yes.

380 Q. Then you specify "milk sugar." Then you add: "A thick, sweet solution of any one or more of the above sugars

would constitute a syrup in the proper acceptation and use of the word syrup."

A. I do.

Q. You haven't got in any one of those different examples there any article but what contains sugar or a——

A. Those are the constituents which give it the character of a sweet syrup. Now, the presence of other substances doesn't make it any less a syrup, and I don't say so.

Q. You intended, did you not, by these examples and illustrations to put them in as a part of your definition?

A. Not as an exclusive definition, but as the characteristic constituents.

Q. How about then mucilage of acacia with five per cent of cane sugar added, would you call that a syrup?

A. Well, that's rather doubtful.

Q. Well, why is it doubtful?

A. Because it isn't substantially a sugar solution.

Q. Why not?

A. It is merely a mucilage solution slightly sweetened, five per cent.

Q. But it comes clearly within the definition that you say ought to be adopted here as a syrup, doesn't it?

A. Well, that's doubtful. The sugar isn't a characteristic constituent. That's a mucilaginous substance which isn't exactly a syrup.

Q. But it is a thick, sweet solution, is it not, in liquid form, and contains some saccharine substance?

A. Yes.

Q. But it contains other substances, doesn't it?

A. It is essentially something else. It's essentially a solution of mucilage.

Q. When practically one-half of an article is essentially something else, do you think that it is quite right to designate that as a syrup, the same as these other syrups that have been known as table syrup for a century?

A. I do, because it is used as a syrup, it is manufactured for a syrup, and it is consumed for a syrup, and it is like a syrup, and its characteristic constituents are sugar.

Q. Anything that is eaten then that is of a thick liquid substance, if it is sweet, is a syrup?

A. If it is substantially sugar, yes.

Q. Well, then honey would be a syrup?

A. In a certain sense, yes.

Q. That would come within your definition?

A. I think it would.

Q. Do you think that that kind of a definition would be of any practical service in the application of a pure food law?

A. I don't see any reason why it shouldn't whatever.

Q. Would sweetened condensed milk come within your definition?

A. No.

Q. Why not?

A. Because its characteristic is milk with a little sugar in it.

Q. Isn't most of it sugar, most of the solid?

A. There may be a large amount of sugar in it.

Q. Most of the solids are sugar, aren't they?

A. No, I don't know that they are.

Q. Practically so?

A. Not of the condensed milks which I have examined.

Q. How about extract of malt, wouldn't that come within your definition of a syrup?

A. I don't know the composition of extract of malt.

382 Q. Now, you proceed further here to illustrate your idea: "Now with regard to the propriety of applying the word syrup to the particular thick, sweet solution of sugar obtained by treating starch with acid, I would say that it — a matter of common custom and has been for nearly one hundred years to call the solution of starch sugar "syrup." That's what you said, wasn't it?

A. It was.

Q. Now, this article we are dealing with is not a solution of starch sugar, is it?

A. Substantially, yes.

Q. You know what starch sugar is, doctor?

A. I do.

Q. Starch sugar don't contain any dextrin, does it?

A. It does generally.

Q. Not to amount to anything?

A. It often contains a great deal.

Q. Well, starch sugar, if it is at all pure contains but a very small percentage of dextrin, doesn't it?

A. It depends on what kind of starch sugar you are talking about.

Q. The starch sugar that is used under that designation, and I mean further, the purer you get the form of starch sugar the less dextrin you have got?

A. The further you carry the conversion the less dextrin you have got.

Q. And you can carry it so far that you get 99 per cent of starch sugar?

A. You can.

Q. And there is practically no dextrin left?

A. Not when you get up to 99 per cent.

Q. So the article here is not, properly speaking, a solution of starch sugar?

A. It is. The term is used in a general way for all kinds of starch sugar no matter how far the——

383 Q. Are our terms in chemistry or practical use to be left in such a loose way as that?

A. They are not loose. Every word in the English language has a meaning that——

Q. And yet it is well understood, the difference between commercial glucose and starch sugar, isn't it?

A. Commercial sugar?

Q. Commercial glucose and starch sugar, the distinction between the two is well understood, isn't it?

A. Starch sugar is a term used in commerce. You are comparing a chemical term with a commercial.

Q. Grape sugar then?

A. Grape sugar is a commercial term to be put on a par with glucose.

Q. There is a clear distinction between commercial glucose and grape sugar?

A. There is.

Q. Understood generally?

A. They are both commercial terms.

Q. Now, one of the main distinctions between the two is, in commercial glucose you have dextrin in large quantity and that in grape sugar you have hardly none?

A. That is true. And it has to be so, otherwise it wouldn't remain liquid.

Q. Page 147 of Food Inspection and Analysis by Leach shows, doesn't it, that in the analysis of condensed milk there is much more sugar than in any other solid?

A. Yes sir. The one at the bottom is "unsweetened condensed milk". I see the one above is "sweetened condensed milk". Now, I am looking to find the percentage of sugar. One of them gives 47, another 38, another 37, another 41, another 40, and another 43.

Q. Don't all of them contain more cane sugar than other solids found in the condensed milk?

384 A. Yes, I think every one of them does.

Q. Now, can you state any authority, either chemically or commercially, to justify the use of the term sugar to cover dextrin?

A. No, I don't know of anybody calling dextrin sugar.

Q. Doctor, you have named a great many substances from which starch may be made I believe?

A. Yes.

Q. Although there are only a few from which it can be made commercially—profitably I mean?

A. That's true.

Q. Corn being the one in this country and potatoes in Germany?

A. Those are not the only ones.

Q. No, but generally speaking those are the prominent ones?

A. Those are the prominent materials.

Q. Now, I think you will concede that glucose is made from some form of starch, is it not?

A. Yes, chemically starch, but not commercially starch.

Q. I will come to that later. It is made from starch?

A. It is, chemically speaking.

Q. You make a distinction, if I understand you, between starch chemically speaking and commercially speaking?

A. I do.

Q. The difference being, if I understand you rightly, in the impurities contained in the one and not in the other?

A. In part.

Q. I understood you this morning as stating that in the process of manufacture here of glucose there would be left in the starch considerable quantities of protein?

A. I did.

Q. What percentage of protein would there be left in the starch?

A. I don't know the percentage, but there is so much that
385 when the starch is used for laundry starch or for corn starch it has to be taken out by means of an alkali.

Q. Isn't it the object, whatever purpose you produce your starch for, to get the starch as free from protein substances as possible?

A. In the case of laundry starch and corn starch for food the starch is freed to a greater or less extent from the proteids. When the starch glucose is manufactured the starch is not purified at all, but is first converted into the glucose and the purification takes place of the glucose and not of the starch.

Q. How much of those proteids remain in the finished product in the manufacture of starch?

A. I don't know the exact quantity. The bone-black through which the glucose is filtered, and filtered to such an excessive degree, removes almost entirely all the proteid substances that were contained in the green starch from which the glucose was manufactured.

Q. The manufacture of starch from corn and potatoes, as you said, is an old thing, been carried on for over a century, hasn't it?

A. It has, but great improvements have been made in the processes.

Q. Could you not, doctor, make glucose from commercial corn starch or other starch which would be identical with glucose made from moist starch in the continuous process?

A. I think that might be possible. I never saw or heard of its being done.

Q. You made certain analyses which were given in this academy report.

A. They were made under my direction—some of them were made under my direction.

Q. Well, that is, I think, proper to say, that you made them or are responsible for them. You approved of them any way. Analyses of commercial glucose?

A. Yes.

386 Q. Did those analyses show that there was any protein left in that commercial glucose as thus analyzed by your committee?

A. No effect was made to ascertain whether there was or was not any protein, and none is shown in the analyses; but the absence of figures, as I recollect, the analyses, does not prove whether there was or was not protein there.

Q. One of the main objects of that investigation was to determine the wholesomeness or unwholesomeness of this article, wasn't it?

A. Yes.

Q. Now, to arrive at that conclusion wouldn't it be necessary for you to determine whether or not any of these substances, protein substances, remained in the article which you analyzed?

A. Not at all. The protein substances that occur in the original, raw material are entirely wholesome and it is a matter of total indifference whether they remain in the article or not.

Q. How do you know they are wholesome when you didn't analyze them?

A. Well, I know the material they were made from, corn. There are no unwholesome proteids in corn.

Q. Might not the proteids be changed by the boiling with acids?

A. The bone-black through which they are filtered (removes) remedies any such substance.

Q. Well, would you assume that as a chemist and not proceed to analyze the substance in order to determine whether there was any unwholesomeness left through the operation of the acids?

A. Well, the consensus of opinion among the chemists was that that matter answered itself, and it was not necessary to make any analyses except those that we did make. We were satisfied on the other ~~point~~ from our general knowledge on the subject.

Q. You claimed, didn't you, to have made in this report an exhaustive investigation of the ingredients that enter into this article commercial glucose, that were left in it?

387 A. No, we did not.

Q. You didn't understand that that is what you were appointed for?

A. We were appointed to find out whether glucose was wholesome or not. After having made all the tests and examination and studies that were necessary, we reported that in our opinion it was not unwholesome.

Q. It would be a very simple matter for you to determine whether there were any protein substances left or not?

A. Yes.

Q. Although at page 81 you state in great detail the amount of the water, the ash, the sulphuric acid, the chlorin, the lime and magnesia, and the alkali.

A. That's true. The object of that was to find out whether there were any objectionable chemicals introduced in the process of manufacture.

Q. Then on page 80 you also examined to determine very carefully the different percentages of dextrin and maltose and dextrose and water in all the samples?

A. Certainly. That was to find out the chief constituents of the products.

Q. Didn't you at page 78, under the head of "Organic Constituents" make an authoritative statement of the organic constituents in the products which you analyzed, and then you left out, as I understand you, protein?

A. We didn't say that we determined all the minute organic constituents, but we determined those that we regarded as essential.

Q. Did you consider protein a minute organic substance not to be considered in the article commercial glucose?

A. We did.

Q. You discussed that, did you?

388 A. We knew that the bone-black used in the manufacture of commercial glucose removed the proteids.

Q. All of them?

A. Substantially.

Q. How did you know beforehand?

A. Why, we were all chemists.

Q. You hadn't been manufacturing glucose, had you?

A. No, but all-around chemists know the nature of things and they don't have to make a special examination every time.

Q. You might have concluded that from your knowledge as an expert chemist in a great many other directions here instead of going on and doing the work?

A. We did what we thought was necessary in response to an inquiry from a government official.

Q. It wouldn't have taken you but a short time to have examined the whole nineteen articles or samples furnished to determine whether there was protein in every one of them?

A. Not if we thought it was worth while to do it.

Q. Now, I want to call your attention to page 70 of this report which is under the general head of the "Manufacture of Starch Sugar", and subheaded under that first you have "Subtracting the Starch", under that "Steeping" under that "Grinding", under that "Separation of the Starch" at subdivision 3, under that subdivision 4 as follows: "The water from the shakers holding the starch in suspension is run either directly upon the tables or into wooden vats, where the starch settles and the water is drawn off and discarded. The starch is next thoroughly agitated with fresh water, to which a small quantity of caustic sodax or carbonate of soda has been added. The object in adding alkali is to dissolve and remove the gluten and other albumenoids, oil, etc". You approved of that statement, didn't you?

389 A. Yes. That was the method employed at one time, but that is not the method employed at the present time. This was twenty-five years ago.

Q. They don't do it the same way now?

A. No, they have found a better way of doing it.

Q. But they get the same results?

A. The glucose when it is finished—

Q. They get ultimately a starch, do they not, that is the same kind of starch that was got in the old method?

A. No, they don't get the same kind of starch. They destroy the starch.

Q. The same impurities in it or free from impurities, isn't it?

A. No, they don't get the same kind of starch in making glucose that they get in making corn starch.

Q. Isn't the starch the same?

A. The starch is the same.

Q. The difference being the small amount of impurities left in it in the one case and not in the other?

A. Yes. That I have stated already.

Q. It's only the product left ultimately, coming from the starch

itself, that is intended to go into the glucose, freed from these impurities?

A. Yes.

Q. So the whole thing we have been talking about here is, not a difference in the nature of the article, starch, out of which glucose is made, but some difference in the method of procedure?

A. No, you are wrong there. The starch from which the glucose is made is different from the starch that is sold as corn starch or laundry starch.

Q. It is at first until the impurities are removed?

A. Yes.

390 Q. Those impurities are ultimately removed?

A. Not from the starch.

Q. What is it removed from?

A. The glucose.

Q. Well, they are removed?

A. Yes, they are removed.

Q. Formerly the impurities were removed before the treatment of the substance by sulphuric acid?

A. They were at one time.

Q. Now they are removed after the treatment of the substance with or by sulphuric acid.

A. They don't use sulphuric acid any more.

Q. What ever acid they use.

A. Yes.

Q. What acid do they use?

A. Hydrochloric.

Q. That is the only difference, isn't it?

A. That is the substantial difference.

Q. So that the article glucose comes from the starch?

A. Yes, the sugar part of it.

Q. You say the sugar part of it. I am talking about commercial glucose?

A. Yes, commercial glucose comes from the impure starch that was used to make it.

Q. And the dextrin comes from the starch.

A. The dextrin comes from the starch also.

Q. And the maltose comes from the starch?

A. The maltose comes from the starch.

Q. Now, I would like to ask you, Dr. Chandler, whether it is possible, with any claim to absolute accuracy, for any chemist to find out by analysis whether glucose was made from farina,
391 maize, starch, tapioca, sago, or any other of the flours?

A. I can't say. I never have had occasion to attempt to make such a distinction.

Q. Do you claim that you would be able, limiting ourselves, to determine whether commercial glucose was made from the starch of corn or the starch of potatoes?

A. I don't know.

Q. It is your best opinion, is it not, that you could not?

A. Well, I think possibly that it might be easy. My recollection,

is, it is a long time since I saw any potato glucose, but my recollection is that the potato glucose has a peculiar little flavor, I am not sure about it, but it might have, and it might be easy to distinguish, just as you could distinguish maple sugar from cane sugar.

Q. I thought there was one thing that we could agree on, that starch was starch.

A. But the starch is never used in the pure state and it carries with it other things which under the influence of the reagents may yield products which would enable you to distinguish.

Q. We got rid of the impurities I thought.

A. You didn't get rid of every substance. Besides, impurities is a word which has a double meaning.

Q. The aim is to get rid of the impurities?

A. The objectionable substances present, but not to get rid of the things which are there and not objectionable.

Q. I thought you said glucose was a sort of a colorless, characterless product?

A. Yes.

Q. Has no distinctive flavor?

A. Not any decided flavor. I was speaking of corn syrup glucose.

Q. Now, if it were true that it would be impossible to determine by analysis from what particular starch the commercial glucose is made, then there would be chances, would there not, for misinformation, if not deception, in the putting off upon the market an article made and calling it corn syrup?

A. If it was made from something else it wouldn't be corn syrup.

Q. Although you couldn't distinguish the glucose in that case from glucose that is made from the corn?

A. I don't know but what you could. I don't say that you couldn't.

Q. I say, if you couldn't?

A. Of course, if you couldn't distinguish them.

Q. Then if it ever becomes true that they make corn syrup from the stalk of the corn, it would be misleading, wouldn't it, to brand another article made from starch as corn syrup?

A. In a sense, yes; but if it was so alike, of exactly the same composition, there would be no object in making a distinction.

Q. Can you give us any authority either in this country or in any other country for the statement that you think that there may be a difference in the character of the glucose that is made from starch coming from different kinds of grain or different sources?

A. I can not.

(Recess.)

WITNESS: Mr. Counsel, I think I must have misunderstood one of the last questions. I think you asked me something about making glucose from corn starch and the counsel on the other side tells me that it was corn stalks. I should like to have the last question but one read.

Q. No, I didn't ask any question about corn stalks. You understood it rightly. I meant to ask about corn.

(Last question and answer read.)

A. I was thinking entirely of the starch and I didn't
393 realize that you meant another kind of sugar.

Court: Do you want to change or correct your answer in any way?

A. Yes, I would like to say that if the sugar or syrup were made from corn stalks, the proper name would be "corn stalk sugar" and "corn stalk syrup."

Q. Then the proper name for glucose would be "corn starch sugar," wouldn't it, and "Corn starch syrup"?

A. If they could make glucose and starch sugar out of corn stalks, then it should be called corn stalk sugar.

Q. Then upon that supposition you ought to name the article that is made from the starch that comes from the kernel of the corn, you ought to label that "corn starch syrup" or "corn starch sugar"?

A. You can call it "corn sugar" or "corn syrup" or "corn starch sugar" or "corn starch syrup" whichever you please.

Q. Why do you say that, doctor, with reference to that article when you say if it — made from the stalk of the corn then the name is "corn stalk syrup" or "corn stalk sugar"?

A. Because in every day life the word corn represents the grain. Of course the farmer out in the country talks about how his field of corn looks and he refers to the plant, but when we talk about corn in commerce, the corn stalks not being a commercial article, they are not quoted in the newspapers every day, and when the newspaper quotes the price of corn it means the kernel of the corn and it is the price per bushel, and that is what we understand as corn.

Q. We agree, do we not, that glucose is made from starch?

A. It is.

Q. And not from the kernel of the corn in the same sense that cane sugar is made from the stalk or juice from the stalk or juice of the cane?

A. Not in exactly the same sense.

Q. Now, I say to be fair and use an honest naming of the
394 articles, if you are going to name the one "corn stalk sugar" or "corn stalk syrup" as indicating the exact source of the article, you ought in the other case, ought you not, to use the term "corn starch sugar" or "corn starch syrup" as indicating the article glucose?

A. I don't think so. I think "corn syrup" is a perfectly honest, logical, proper name, and I understand it isn't the intention of the pure food law to interfere with the liberty of people in using names, provided they don't cheat.

Q. I wasn't calling upon you to interpret the pure food laws. You think it would be proper, do you, to advertise that an article which is, so far as the corn is concerned, made up wholly of number 1 glucose, should be advertised as coming from the kernel of the corn?

A. Undoubtedly.

Q. As "containing the essence of the corn"?

A. Yes, it contains the essence of the corn.

Q. And decorated with the ears of the corn?

A. Quite proper.

Q. You don't think that the ordinary citizen who has been in the habit of buying syrup might not think that this product as advertised in that way came from the grain of the corn in the same way that the cane syrup comes from the stalk of the cane?

A. The average citizen doesn't know anything about where the cane syrup comes from.

Q. You speak for them on that, that is your opinion, is it, doctor?

A. It is.

Q. Well, I think you do us out west here a little injustice. Now, I understand, doctor, that as early as 1869 you were engaged or employed by a sugar refining company?

A. I was.

Q. And this company was engaged in the making of sugar from what?

395 A. It was the refining of sugar from the sugar cane.

Q. You know by reading and investigation that glucose, commercially, and grape-sugar, commercially, have been made for a century or more in the old country?

A. I do.

Q. You know and have known for a great many years that in order to obtain the grape-sugar—I am using that term now as I think the term you indicated was the proper one—you pursue the process until you practically convert the article into what's called dextrose; you convert your glucose into what is called dextrose, don't you?

A. Substantially.

Q. And in that process you substantially eliminate or get rid of dextrin?

A. You don't get rid of it, you change it into dextrose.

Q. Well, you change it chemically into dextrose?

Mr. FAIRCHILD: You said convert glucose into dextrose.

Mr. OLIN: I meant convert dextrin into dextrose.

Q. Now, that commercial article, whether called starch syrup or glucose or potato syrup, whatever you call it, has been used, hasn't it, for a long number of years, a century or so, as a food product?

A. It has.

Q. You have known that the article commercial glucose in order to keep it in that form would have to contain the dextrin?

A. That has been known for some time.

Q. You have known that for forty years, haven't you?

A. No, because I didn't know it when we made this report to the National Academy.

Q. Although you had been employed by a sugar refiner?

A. He didn't use glucose.

396 Q. And although you have made all this study and investigation, commencing back I think, in experimenting with glucose in Germany in 1855 you said.

A. That was determining the percentage of dextrose in a liquid.

Q. I am not going into details. And you had followed on your studies and instruction from that time down, I understood?

A. More or less.

Q. And yet you say as late as 1883 or 1884 you didn't know that in order to retain the article in the liquid form you needed the presence of dextrin, did you?

A. I didn't know it. If I had known it I wouldn't have forgotten it.

Q. Do you wish to state that as eminent a chemist as Dr. Remsen was at that time signed a report to the effect that he didn't know that it was necessary to retain dextrin in order to retain the article in a liquid form?

A. I do. I don't think that fact appears in a book that was accessible to any of us at that time.

Q. You say it didn't appear in any book? Hadn't there been food analyses, standard works gotten out in Germany and England and France long before this, on this manufacture of glucose?

A. They didn't touch upon that question at all as far as I know.

Q. They didn't deal with the question that there were these elements of dextrin and maltose and dextrose in the article?

A. No, I didn't say that. They didn't deal with the fact that there was an object in having dextrin left unconverted in order to prevent the glucose from solidifying.

Q. Do you say that none of those books treated it?

A. I don't think so. We were not aware of it at the time we wrote that report. We may have overlooked some such statement, but it is a fact that we did.

Q. This report of page 77 contains, does it not, the following: "Assuming that in the process of manufacture perfectly pure starch, acid and water were used, that nothing foreign was introduced, and that the transformations were carried to the end, the product would be pure dextrose. But the conditions under which the manufacturers work permit of considerable variations in the composition of the products. In the first place, the transformation of the starch into dextrose may not be perfect. Indeed, if sulphuric acid be used to effect the transformation, it is impossible, even under the most favorable conditions, to transform more than 95 per cent, of the starch into dextrose. The extent of the transformation is dependent upon the strength of the acid, the temperature, and the time during which the heating is continued. The intermediate products are chiefly maltose and dextrin, which may be present in greater or smaller quantities according to the way the process is carried out. If the product is to be used in the form of a syrup, then the presence of dextrin is objectionable, as it has no sweetening power, though it does not produce injurious effects on the system." That is contained in your report?

A. It is. I have already explained how it happened to get there.

Q. Now, at and prior to that time you knew, didn't you that this commercial product glucose was being used extensively in this country as an adulterant with syrups proper?

A. Yes I had heard that it was. It was never used in that way in the factory with which I was connected.

Q. Didn't you have in mind then when you wrote this the idea that a syrup should be what it was understood to be, sweet, and that just to the extent that you introduce this other element, dextrin, which was not sweet, you adulterated the article called syrup?

A. In the sense that it was not sweet, not otherwise; not that it was less wholesome.

Q. Wasn't that the fact that was in the mind of this committee, that it was not an honest article to put out labeled as a syrup if it contained a mixture of this glucose, because to the extent that it contains dextrin it wouldn't be a sweet article?

A. No, it was a sweet article, but it would be sweeter if all the dextrin was converted into the dextrose.

Q. I say, to the extent that the dextrin was in there it wouldn't be sweet?

A. It wouldn't be as sweet.

Q. Now that is the reason you made that statement, isn't it?

A. Yes, because we didn't know there was any necessity for leaving it in.

Q. Well, it wouldn't be any sweeter today, would it, than it would be in 1884?

A. No, but there is a reason for leaving it in now—an absolute necessity for leaving it in.

Q. Well, there wouldn't be any objection to leaving it in and selling it as a syrup if you labeled it for what it was, would there?

A. If we labeled it corn syrup, that tells what it is.

Q. You didn't have any other idea of syrup in your mind at that time?

A. In what sense?

Q. Than you have now?

A. I don't know what sense you are referring to.

Q. Well, the idea you had of a syrup then was something that was sweet, that belonged to the sugar, wasn't it?

A. Yes, and we didn't have the keeping question in our minds, we didn't know that it had to be prepared so as to keep and not solidify in the package.

Q. What are known as molasses are what are obtained in the manufacture of sugar, are they not, a resultant that doesn't crystallize out?

A. Yes, that is the general meaning of the term molasses.

Q. Now, to the extent that there are any impurities there, that prevents the crystallization, doesn't it?

A. It depends on what you understand by an impurity. One pound of glucose will prevent one pound of cane sugar from crystallizing. Consequently, when the percentage of cane sugar has been reduced by extracting the sugar, taking out the white, buff and yellow sugar, the glucose is left behind and by and by the amount of cane sugar that is left as such, with the glucose present, and the

saline matter present, prevents its crystallization. Now, the glucose is not an impurity, it is another kind of sugar.

Q. Well, there are impurities, aren't there?

A. No, there are no impurities.

Q. But there are certain impurities?

A. I don't know that it — proper to call them impurities. You see the molasses are put through bone-black and the real impurities are taken out of it.

Q. Well, we will pass that for the present. I wish to direct your attention to page 73 of this report. Now, on page 73 of this academy report you say: "Starch sugar appears in commerce in a great variety of grades, under the following names," Then you classify a and b, do you not?

A. Yes.

Q. First the a, the liquid variety, and under that follows these terms: "glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose". I have read it correctly, haven't I?

A. Yes.

Q. Then follow the solid varieties under (b) which I will not read. After stating the solid varieties there is this found in the report, isn't there: "One establishment puts upon the market two varieties of starch sugar and the names", new paragraph "1. Maltose or maltose syrup for brewers. 2. Maize sugar or syrup for confectioners", new paragraph, "And claims that they do not contain grape-sugar (dextrose) but consist essentially of maltose (New paragraph). The committee visited the factory but it was not in operation, nor were the proprietors disposed to inform the committee of the nature of their processes, which they deemed it important to hold secret. They kindly supplied samples, however, and these are included in the list of analyses". I have read that correctly, haven't I?

A. You have.

Q. Now, on page 80 there is this statement, isn't there: "Nineteen numbered samples in all were sent for examination. Of these seventeen were analyzed, number 5 being wanting in the lot as received, and number 11 evidently being a sample of impure cane sugar. In table 1 the figures are given as obtained, and in table 2 the percentages of the constituents are given, as calculated by the method given above. Numbers 7, 8, 9, 10, 12, 13 and 15 were solids, the others liquids, numbers 7 and 19 evidently contained considerable burnt sugar, to which fact the scarce results obtained in the analyses are at least partly to be attributed. Numbers 8, 19 and 15 are specifically pure specimens of grape-sugar and certainly do not represent the average composition of grape-sugar. As a fair sample of commercial grape-sugar numbers 12, 13 and 15 may be taken. In these as will be seen the amount of dextrose present is between 72 and 73.4 per cent. while the dextrin varies from 2.4 per cent to 9.1 per cent. As regards the liquid product, the so-called glucoses, it will be seen that the amount of dextrose present in them varies from 34.3 to 42.8, and the amount of dextrin from 29.8 to 25. It should be said that the constituents thus far mentioned are in themselves not injurious when taken into the system, though, as above

stated, the dextrin has no sweetening power and hence it has no value as a constituent of table syrup or sugar". Now, I read that, doctor, because I thought it necessary to explain what I now want to call your attention to, the table number 2 on page 80 and the table found on page 81. In table number 2 you give, do you not, an analyses of these samples running from number 1 up to number 19, omitting, however, number 5 and number 11?

A. We do.

Q. You state there the percentage of dextrose, of maltose, of dextrin and of water, in each case?

A. We do.

Q. Now on page 81 you give each one of these nineteen samples, do you not?

A. We do.

Q. Under the names as they were given you?

A. We do.

Q. Do you find anywhere the name of "corn syrup" in any one of those nineteen samples?

A. I do not.

Q. You do find, however, do you not, the name "maize syrup" opposite number 17?

A. I do.

Q. And do you find also "maltose opposite number 16?

A. I do.

Q. And "Maltose" and "cane syrup" have indicated after them the letter G, in each case indicating the factory from which they came, haven't they?

A. Yes.

Q. That indicates that those two articles came from the same factory, don't it?

402 A. It does.

Q. Now, if you will kindly turn back to page 73, you there see, do you not, what I read, that there was a certain factory whose proprietor didn't want to let you know the secrets of the trade, and he gave you two terms "maltose" and "maize sugar", didn't he?

A. Apparently.

Q. Now, as to 16, turn to page 80, and under the term "maltose" will you tell us how much maltose your analysis determined was in that article, that number?

A. Number 16? Why, only one-sixth of one per cent.

Q. It had one-sixth of one per cent, didn't it?

A. One-sixth of one per cent of maltose.

Q. And yet he was selling it under the name of "maltose"?

A. He was, at least I don't know whether he sold it, he called it that.

Q. That was the fellow who wouldn't let you see into the secrets of his trade, wasn't it?

A. Apparently.

Q. Now, we will take the fellow who gave it "maize syrup", that is number 17, let us see what you find there. It is stated, isn't it, that you found 39 per cent dextrose?

A. Yes.

Q. And no maltose at all, did you?

A. No maltose.

Q. Dextrin you found 41.4 didn't you?

A. Yes.

Q. And water 19.3?

A. Yes sir.

Q. You found a very high percentage of dextrin, didn't you?

A. We did.

Q. No maltose at all?

403 A. No maltose at all.

Q. And that is what he named "maize syrup"?

A. It was.

Q. Now, doctor, isn't it your opinion that there is where you got the idea of "corn syrup" in this investigation and that you in enumerating it here in one place called it "corn syrup" and in the other place "maize syrup"?

A. There isn't the slightest reason to suppose that to be the case.

Q. Although you only got nineteen samples, as your report shows, and you have got the nineteen named on page 81, and under those names there is not one that gives the name of "corn syrup" is there?

A. No.

Q. How do you account for that fact, after having stated on page 80 that you had nineteen numbered samples only, and on page 81 you have accounted for every one of those samples under their proper names?

A. Why, I don't have to do any accounting. We stated the names under which we found that glucose was being sold in the market. We had nothing to do with the particular samples which we analyzed. We didn't buy those samples in the market—at least I have forgotten how we did get those samples, to tell the truth. I know I sent my assistant to the several factories and he brought back several of the samples, and it is possible that Professor Rensen procured some of the samples, because he had the analyses made which determined the dextrin and dextrose, etc. I have really forgotten how the samples were procured. I know I had quantities of samples.

Q. That table on page 81 professes to give the name of every one of the nineteen samples, doesn't it?

A. Yes, but—

404 Q. And you have got in the "maize" and the "maltose" that we found on page 73?

A. That is true, but we didn't go out and buy samples of every name, glucose, jelly glucose, confectioners' crystal glucose; we haven't any mixing glucose, we haven't any mixing syrup, we haven't any grape-sugar.

Q. Do you say you haven't any mixing syrup?

A. Well, there may be a mixing syrup there, but half of the names we found this material was sold under are not represented in the names of the nineteen samples that are analyzed. There is no connection between that part of the report and the analysis part of the report.

Q. Did you understand at that time what corn syrup was?

A. We knew that it was glucose.

Q. You knew that it was glucose?

A. We understood that it was glucose.

Q. Did you understand that it was unmixed glucose?

A. I don't remember about that.

Q. Had you ever heard of it being sold at that time as unmixed glucose?

A. That was one of the names of the liquid varieties of glucose.

Q. I say, had you ever heard of its being sold unmixed as "corn syrup" up to that time?

A. There wasn't any question as to whether it was mixed or unmixed.

Q. Did you understand it was mixed?

A. We understand it was one of the names for liquid glucose unmixed.

Q. Unmixed?

A. Unmixed. They might mix it afterwards as much as they liked, but it was unmixed glucose.

Q. You can't say that you had ever heard of any such article being sold in the market at that time?

405 A. Why, we did hear that it was sold in the market as one of the kinds of liquid glucose unmixed.

Q. Didn't you hear that it was a mixed article?

A. No, because if we had, we would have put it in that list. That represents the list under glucose.

Q. Although you got mixing syrup and mixing glucose?

A. Well, mixing syrup was glucose to be used for mixing with refiners' syrup.

Q. What is that term, mixing glucose?

A. Why, mixing glucose is another name for mixing syrup, another name for the same article.

Q. Didn't it simply mean mixing glucose is used for mixing purposes with other syrups?

A. That is it exactly.

Q. And mixing syrup meant what was used in mixing with glucose?

A. No, it was glucose to be mixed with refiners' syrup.

Q. Then mixing glucose and mixing syrup are the same thing?

A. The same thing, only different manufacturers use different names.

Q. Did it occur to you to analyze this rather unusual name "corn syrup"?

A. We were not analyzing names, we were analyzing the products of the factories. We didn't care about the names they called them by. It was the article we were to investigate.

Q. You didn't think it would be wise for the committee to analyze this article that was named corn syrup?

A. Why no, it was nothing but a name.

Q. I think you said you were familiar with this book of Frankel?

A. Well, I can't say that I am very familiar with it. I have seen it.

Q. Well, it is on "Starch, Glucose, Starch-sugar and Dextrin". That is on the outside of it. Now the edition we have here
 406 that I show you is 1881. Now, you were especially investigating at this time this subject as you said. On page 196 under the head of "The Manufacture of Glucose and Starch-Sugar from Starch" I find this statement: "From this syrup no solid sugar will separate, since its ability to crystal-ize is checked by the presence of the dextrin". Were you not familiar, Dr. Chandler, with that leading book right on that subject that you were investigating at that time?

A. I was not.

Q. And do you wish to say that no other member of that eminent committee was familiar with the statement made that I have read to you?

A. It is evident from the report that they were not familiar with it.

Q. Would it be evident from the report that they were not familiar with it, if, as I indicated in my question, what you had in mind was that a syrup should be sweet, as it was commonly understood, and that to the extent that the syrup was adulterated by an article that contained dextrin in it, as glucose does, it would be adulterated?

A. No, I shouldn't answer it in that language. I should say that in speaking of a glucose solution as a sweetener, the committee not aware of the fact that dextrin was necessary to keep it in a fluid state, they regarded the presence of that dextrin in place of an equivalent quantity of dextrose a failure to reach the maximum degree of sweetness.

Q. There appears, does there not, on page 77 of this report of the committee of the Academy of Sciences the following: "The names grape-sugar, glucose and dextrose, when used by a chemist, are meant to designate the same substance. In commerce, however, as already stated, the names grape-sugar and glucose have a somewhat
 407 different meaning, the former being applied to the solid and the latter to the liquid products."

A. That's true.

Q. And that's true now, isn't it?

A. Yes.

Q. That the term glucose is applied to the liquid product?

A. Yes.

Q. So that as among the common people it is commonly understood that this term glucose in this country is used to designate this commercial unmixed article today?

A. Well, I don't think among the common people they know whether it is mixed or not. They have heard the word glucose and have a very vague idea of what it is. It has been represented in the public press as some dirty thing which is not fit for human food.

Q. I didn't ask you, doctor, how it was represented, as some dirty food, in the press.

A. No, but you asked me what it was understood as by the common people.

Q. I am asking you whether the common people didn't under-

stand—didn't use this term in that way, glucose, as indicating not whether it was pure or impure, that was volunteered by you, but as to whether they didn't use it as indicating this article that we call glucose, didn't understand it to mean that?

A. The common people don't know whether it is liquid glucose or whether it is solid grape-sugar. They know the name glucose and they know very little about the substance itself. It is a newspaper word to most people.

Q. Don't you think they know it is a manufactured product as distinguished from what may be called a natural product?

A. I don't think they know anything about it. All they know is from the newspaper paragraphs.

Q. Well, what did you mean to cover when you said: "In
408 commerce, however, the term 'grape-sugar' and 'glucose' have a different meaning".

A. I mean among the people who buy and sell it, the consumers, not the people who consume it in small quantities on the table, but the people who actually buy and sell it by the quantity.

Q. I think you have already answered in substance, doctor, that nothing besides the starch goes into the finished product finally of glucose. That is the fact, isn't it?

A. Substantially, yes.

Q. You speak, doctor, of it being the consensus of opinion among the most distinguished chemists of the country that this term corn syrup is a proper term to use, and then you read in connection with that answer or that testimony the names of these different persons who had given an opinion and copies of whose opinions you have in this book or pamphlet. I will ask you to state how many food control chemists now actually engaged in that work and who are engaged in assisting in the administration of the pure food laws you have in this list?

A. None. We didn't consider their opinions reliable.

Mr. OLIN: I move to strike that out.

Court: Strike out "We didn't consider their opinions reliable. Exception by defendant.

Q. You stated glucose, including dextrose and levulose, if I understood you, is present in all—nearly all of the fruits, etc.?

A. I did.

Q. What do you mean by the term glucose as you here use it in that connection?

A. I think you said that I said that the glucose, including levulose—was that the way you read it?

Q. I understand you to say that glucose, including dextrose and levulose?

409 A. Yes, that's it, that's exactly what I meant.

Q. Now, you used glucose there in what sense, the commercial glucose, or as a sugar?

A. I used it to cover both kinds of sugar but I specified each of them.

Q. Now, another term there for those two elements is what you call invert sugar?

A. Yes, when they are in equal quantities it is some times called invert sugar.

Q. And it is invert sugar that you get, isn't it, by the application of an acid or something that breaks down cane sugar?

A. Yes, you get invert sugar under those circumstances.

Q. Made up equally of dextrose and levulose?

A. Yes sir.

Q. It is a less sweet article than cane sugar, isn't it?

A. It is.

Q. So that in the manufacture of sugar, whether we call it from the maple plant or the cane, or the sorghum, or the beet, we try to prevent as much as possible the securing of invert sugar?

A. Yes, because the cane sugar brings a higher price.

Q. It's a sweeter material?

A. Yes, it's a sweeter material, and it can be rendered perfectly white and crystal-ized.

Q. And that is true as to the syrup, if you get a first-class cane syrup you get a sweeter article than you get from mixing with glucose?

A. Yes, it isn't as sweet unless you use a stronger solution of glucose; if you use a strong solution of glucose, you might have more sweetness.

Q. Are you now talking of commercial glucose?

A. Yes.

410 Q. That you would get a sweeter article by using commercial glucose?

A. No, if you take a dilute solution of cane sugar and a strong solution of glucose, the product might owe its sweetness more to the glucose than to the cane sugar.

Q. Oh, yes, that is true, if you put in 99 per cent of glucose and one per cent of cane sugar, I will concede that.

A. Your question wasn't definite enough for me to answer.

Q. Aren't both dextrose and levulose you spoke of as present in the preserves produced from at some time sucrose?

A. Perhaps so, I don't know.

Q. In the plant?

A. I don't know.

Q. That is generally held, isn't it, among chemists?

A. I have heard it stated to be the case. I am not sure that it is.

Q. You do not find dextrose alone in the plant, it is always in connection with levulose?

A. Well, I have seen some statements that at some stages of the growth the sugar is exclusively dextrose in some of the fruits. I don't know how reliable those statements are.

Q. You couldn't from your own experience or investigation make any such statement?

A. No, I know that the proportions of dextrose and levulose vary; they are not always present in equal quantities.

Q. Did you say something about your having glucose in maple syrup, of thirteen per cent?

A. I did.

Q. Well, that would be regarded as a very impure maple syrup?

A. No, maple syrup that had been kept for some times, when it is kept for some time it softens and becomes semi-liquid
411 and undergoes a kind of fermentation, which I presume inverts the cane sugar and makes dextrose and levulose.

Q. It isn't in the form that we like it when we want to get fancy maple syrup, is it?

A. I wasn't talking about syrup. I was talking about sugar.

Q. I was just going to ask you what you meant by glucose, whether commercial glucose or the sugar. You meant the sugar, didn't you, or dextrose?

A. I mean the dextrose and the levulose.

Q. Not the commercial glucose?

A. Of course you couldn't get commercial glucose into maple sugar naturally.

Q. Now, it is the aim, isn't it, in the manufacture of maple sugar, as well as in the manufacture of sorghum into sugar, or cane into sugar, to get just as little as possible of any invert sugar, or levulose or dextrose?

A. I presume in making solid sugar that would be desirable, but in making the syrup the flavor is developed in the process of manufacture. The maple juice has little or no flavor when it is tapped from the tree. The flavor which the maple molasses and maple sugar develop is developed in the process of boiling down.

Q. That reminds me of one thing. Now, you said that the cane stalk didn't have any distinctive flavor. Passing that; it is true, though, is it not, universally, that the product which you get from the cane, the syrup I mean, and the syrup you get from the maple sap, and the syrup that you get from the sorghum plant, have each their own characteristic flavor when the article is produced?

A. Yes, they are produced in the boiling down.

Q. You don't know just how it is produced?

A. No.

Q. The elements though are there somewhere that lead to those results?

412 A. Yes.

Q. And it is those characteristic flavors that give value or lack of value to it, is it not?

A. That is true.

Q. It is that characteristic flavor belonging to the maple that adds to its value, isn't it?

A. It is.

Q. That is true of the cane, isn't it? I am talking about the syrup?

A. Yes it is.

Q. And it is true of the sorghum?

A. I don't know so much about sorghum.

Q. Now, that isn't true, is it, of the product that is manufactured into the liquid form as commercial glucose from any starch?

A. No, that has little flavor.

Q. So that the only element coming from the corn in what you call corn syrup is the glucose, isn't it?

A. Well, commercially speaking, yes.

Q. Yes, I am talking commercially. You understand that?

A. Let me hear the question again.

(Question read.)

A. Yes, I answered that correctly.

Q. And that comes from the starch?

A. Substantially.

Q. The thing that gives the peculiar flavor or character to the syrup as it is put upon the market is the mixing element, isn't it?

A. It is the refiners' syrup.

Q. It is the refiners' syrup or cane syrup, or if they use maple syrup or sorghum?

A. Yes.

Q. Or molasses?

A. Or molasses.

Q. You said that dextrin may not in any proper sense be
413 a mucilage did you not?

A. I said in this connection, that it was a gross perversion of the facts to say that corn syrup was virtually composed of mucilage, because it is using a word which is really an opprobrious epithet.

Q. I don't know as anybody has said just quite that—but there is dextrin in the glucose?

A. There is dextrin in the glucose.

Q. And you take that dextrin out and dissolve it in water and what have you got?

A. You might sell it for mucilage if you wanted to.

Q. You have got mucilage, haven't you?

A. You have got a solution of dextrin. I shouldn't call it mucilage.

Q. And you have got a mucilage, haven't you?

A. Well, you can call it mucilage, if you want to.

Q. A mucilage that is used, isn't it, making postage stamps at times?

A. Well, it is not made that way.

Q. Well, it would be just as good, or even better, wouldn't it?

A. I don't know. It might suffer very seriously in its quality by being put through those processes.

Q. Well, dextrin is the sticky part of the article, isn't it?

A. What article?

Q. Of the commercial mucilage?

A. Yes, dextrin is the sticky part of it—in part—there is some starch in it usually.

Q. If I understood you correctly, it was that the article here produced as a mucilage would be purer than the commercial mucilage?

A. Yes.

Q. But there would be no difference in the article except on the question of purity, would there?

A. The dextrin in the glucose has never been put through
414 a drying process, it never has been treated under the influence of a temperature of three or four hundred degrees with nitric acid, and we don't know exactly the composition of dextrin; some authors insist that it is a mixture of four different kinds of material, to which they have given names. So the commercial dextrin is made by a totally different process, by the use of different agents, different temperatures, and have been subjected to a drying process.

Q. Can you name now yourself any other difference between the commercial mucilage and the dextrin?

A. I have just mentioned a number of them.

Q. You spoke about dextrin being one of the most common articles of food, doctor.

A. I did.

Q. And you spoke of toast and the crust of bread. Will you tell us what percentage of dextrin is in toast?

A. Why, I only have one figure in my head and that is that bread-crust contains as high as eighteen per cent of dextrin. I want to say that it always contains it, probably contains more, and sometimes less. As heat converts starch into dextrin it is quite natural that any form of starch or wheat flour exposed to heat will furnish dextrin.

Q. Would you say or do you think, doctor, in your experience and knowledge that there is over one per cent of dextrin in the ordinary toast?

A. I have seen a statement of eighteen per cent.

Q. No, take your own experience.

A. I never have analyzed it. I don't see how you could make toast tea out of an article that had only one per cent of soluble matter in it. I have drunk toast tea myself when I was sick, and if the article had only one per cent of soluble matter in it, it would have been a pretty thin tea.

Q. Did you say that this toast tea was given because of the
415 ease of digestion of the product or article?

A. That was my explanation of the advantage of it.

Q. Well, why don't you give dextrose at once?

A. Well, I presume they don't keep dextrose in the family, whereas the toast is always on hand.

Q. Or cane sugar?

A. Well, cane sugar is liable to sour on the stomach of invalids.

Q. Now, a word here, doctor, as to refiners' syrup. You stated, as I understand you, that this was the product left after the filtrating or getting off the first grade of sugar, and then a second grade of sugar, and then a third grade of sugar, and then finally you got this refiners' syrup?

A. It had to be refined afterwards.

Q. And that the bone-black was used in each step in the process?

A. Yes.

Q. Now, if they had stopped with the first process, with the process which gave you the sugar number 1, and used the syrup that was obtained, then you would have had what is known as first-class syrup, wouldn't you?

A. No, they never use that for syrup.

Q. Well, if they had used it.

A. It hasn't as much flavor. It has too much cane-sugar in it.

Q. Isn't it a fact that years ago they used to do that in the manufacture of sugar, cane sugar, and got a first-class article of syrup?

A. You are probably thinking of the old sugar house, sugar baker. He didn't make sugar in that way at all. He bought his raw sugar and he dissolved it and boiled it in open kettles at first, and then he only got practically one or two crops of sugar out of it, and the molasses that was left, that was so thick that it
416 would almost stand alone in cold water, that was sugar-house syrup. I visited several factories in Hamburg and Antwerp, but they have all disappeared, and they only made that then because they couldn't do any better.

Q. I say, if they stopped there, you would get a thick, first-class molasses, wouldn't you?

A. No, you wouldn't—too much cane sugar in it.

Q. If they stopped at the second stage would they get a first class molasses?

A. No, there is still too much cane sugar in it.

Q. Then in order to get a good syrup you must go through the third stage?

A. You get more flavor, a more acceptable syrup.

Q. Well, is that the only reason, that you get more flavor?

A. I think it is, because you are concentrating the flavor all the time in the syrup, the more sugar you take out, the smaller volume, and all the flavor goes into it.

Q. How much concentration takes place in these last two processes, the second and the third?

A. It is the proportion of sugar that they get out of them, I forget how much.

Q. About how much?

A. Well, I don't like to guess at it.

Q. Is it half of the total?

A. Oh, they take out much more than half; the first crystal-ization often takes out sixty per cent of the sugar that is there.

Q. Half of the whole syrup I mean.

A. What?

Q. Is there that much concentration between the first stage and the end of the third?

A. Oh, there is a great deal more than that.

Q. How much is there?

417 A. I don't know. I can't guess at it.

Q. Is it three-fourths?

A. I shouldn't wonder.

Q. That is your best judgment?

A. I don't remember the figures. It depends on how the sugar house is run. It would be different in different sugar houses. And

there are various different processes for handling the sugar. There is no fixed ratio.

Q. And your theory is that the flavor is due to the concentration?

A. It is, and the changes that take place during the concentration.

Q. Oh, the changes that take place during the concentration? What changes do you refer to?

A. Why, the cane juice had no flavor to begin with, and the flavor is all developed in the process.

Q. But from the end of the first process to the end of the third process what changes take place?

A. Why, the boiling takes place.

Q. But didn't you say on your direct examination, that that only resulted in concentrating?

A. Oh, no, I didn't say that that only resulted in concentrating.

Q. And that the increase in flavor was due altogether to the concentrating and not to any changes other than that?

A. No, it is due to both.

Q. Now, what are the changes?

A. I don't know what they are, but they are the changes that make the difference between a clear, colorless, flavorless juice and the rich, colored, highly flavored molasses.

Q. Well, can you trace that from the syrup that you get at the end of the first stage through to the end of the third?

A. Each syrup has a higher flavor than the previous syrup.

Q. And that flavor is due to what?

418 A. It is due partly to the concentration and partly to changes that take place in the treatment.

Q. Now are those changes due in part to the application or use of the bone-black?

A. The only thing that the bone-black does is to take out impurities.

Q. Then you can answer the question.

A. It does not add to the flavor.

Q. It doesn't have anything to do with the flavor?

A. I don't think it does.

Q. Are you certain about it?

A. It only takes out impurities; it doesn't take out the flavor.

Q. Does it have anything to do with the change in the flavor of the article?

A. I think not. It is my opinion—

Q. Well, will you say that it doesn't and that there results in the article by reason of the use of this bone-black a large amount of ash and there is left finally in the product a large amount of salt by reason of the application of this bone-black?

A. No, that isn't true. In the first place, the bone-black don't put any salts into the sugar, and in the second place, there is not a large amount of salts in the syrup when you get through.

Q. About eight per cent isn't there?

A. No, my analysis there didn't give eight per cent.

Q. Didn't you give an analysis which showed eight per cent of ash?

A. Not cane sugar syrup. *

Q. Refiners' syrup?

A. Two per cent of ash. All sugar molasses contain a large amount of ash, but cane sugar contains very little ash.

Q. Doesn't commercial refiners' syrup often run up to eight per cent of ash?

419 A. Not if it is made from cane sugar.

Q. Yes, when it is made from cane sugar.

A. I think it is impossible.

Q. If it does, what would it be due to?

A. I don't know. Probably the use of some beet sugar in the factory.

Q. Did you say that refiners' syrup was frequently adulterated with beets?

A. No, I didn't say anything of the kind. No, I said that some sugar refiners refined some beet sugar as well as some cane sugar. There is no adulteration about that. Beet sugar is as good as cane sugar. You can't tell them apart.

Q. Do you say that refiners' syrup is manufactured in any case from beet sugar?

A. I don't know. It may be.

Q. You have no knowledge on that subject?

A. I am not aware just at the present time what the sugar refiners are using. It varies with the season and with the market, and various things, the crops.

Q. What is the difference in the flavor that we find in refiners' syrup and in molasses due to?

A. You mean a distinction between refiners' syrup and molasses?

Q. Please read the question (Question read).

A. The difference in the mode of manufacture I suppose. You see we have some molasses which is——

Q. The difference in the mode of manufacture. You don't think it is due to changes chemically by reason of the application of this bone-black?

A. No, bone-black has nothing to do with it. There is a difference in the mode of manufacture. There are ever so many variations of the mode, first of making raw sugar and getting the
420 plantation molasses, and, secondly, treating that afterwards and getting refinery molasses.

Q. Would it be proper to speak of molasses as having a cane flavor?

A. I think so. I think one can tell cane molasses from beet molasses without any question.

Q. Then is there any difference in your mind between what is called cane syrup and refiners' syrup?

A. There may be some commercial difference. I don't know what original difference there is.

Q. Is there any difference in the quality of the article, is one regarded equally as high grade an article as the other?

A. I don't know what they sell under the name of cane syrup.

Q. You don't know anything about that?

A. I don't know of that trade name "cane syrup". It is somebody's special brand I suppose.

Q. You wouldn't know cane syrup if you saw it?

A. I wouldn't know——

(Exhibit 12 shown witness.)

A. I don't know what that is.

Q. Do you recognize the flavor?

A. Yes it smells rummy. It probably is plantation molasses. I don't know what it is.

Q. It has a distinctive flavor, very marked, hasn't it?

A. Yes. It does not have the ordinary syrup flavor, or even the ordinary sugar-house molasses flavor.

Q. Doesn't it have the ordinary cane flavor that is incident or connected with cane syrup?

A. The only thing it reminds me of is a diluted plantation molasses made in the old-fashioned way and fermented until it contained some alcohol, it has at least an alcoholic, rummy smell.

Q. Take Exhibit- number 2 and 3.

421 A. I don't pretend to be able without making analyses to take up a thick, syrupy liquid and tell by smelling of it what it is.

Q. No, I don't ask you in that way, but there is a distinctive flavor to that, is there not, different from the first I handed you.

A. Yes, it has a different smell.

Q. And there is a different flavor to number 2 which I now hand you is there not?

A. Smell—not flavor. Flavor is taste. Yes, that has a different smell from the other two.

Q. It is the smell that gives the article its flavor?

A. No, not necessarily; not at all. Smell is not necessarily the cause of the flavor. There may be something that don't smell that has a great deal more flavor than the thing that does smell.

Q. Take the article of commercial glucose mixed with refiners' syrup, would you say that it had a cane flavor—do you think that would be proper?

A. I do. I think refiners' syrup has a cane flavor. It is a product of the sugar cane.

Q. If it was mixed with molasses would you say that it had a cane flavor?

A. If the molasses gave it a cane flavor, I should.

Q. What do you call a cane flavor?

A. It is the flavor of ordinary molasses, ordinary refiners' syrup.

Q. You make no distinction between the two?

A. Well, there are variations. Every one knows what a wine flavor is, yet there is quite a variety in the flavors of different wines.

Q. Which is the sweeter article of the two, the cane syrup or the refiners' syrup?

A. It depends on the strength, it depends on how much water they contain and how much sugar they contain.

Q. Well, evaporated in each case to the same limit?

422 A. If they both contain the same percentage of sugar, the one that contains more cane sugar and less dextrose would be the sweeter.

Q. As ordinarily sold on the market which is the sweeter article, refiners' syrup or cane syrup?

A. I don't know what they sell under the name of cane syrup.

Q. A cane syrup, according to the standards as they have been prepared and promulgated in this circular?

A. I never heard of or saw such a syrup as that being put on the market, by boiling down the juice of the sugar cane. In all my experience I never heard or saw that being put on the market as cane syrup.

Q. You don't know if it's being advertised now?

A. No.

Q. By a leading firm here in Chicago?

A. Well, advertising wouldn't be sufficient. You would have to know how it was made.

Q. Here is an advertisement by W. M. Hoyt & Company, Chicago: "Cane syrup, light color. This is the pure article and the best that money can buy. It will keep in any climate. If you are not familiar with the qualities of straight cane syrup, you had better ask us to send samples before ordering" and gives the price per barrel, etc.

A. I don't see what that proves, except it's an advertisement.

Q. Now, just a word, doctor, as to your criticism here of the term syrup. You say that as given here on page ten "syrup" wouldn't include anything but maple syrup and molasses, I believe?

A. Not molasses.

Q. No, but sorghum. Wouldn't it also include cane syrup if that was made?

A. If it were made, yes.

Q. And it would also include the syrup if made from the stalk of corn as it is given here?

423 A. It would.

Q. Will you name any syrup that it does not include excepting this article made up of glucose mixed with a certain percentage of refiners' syrup or some other syrup?

A. Why it doesn't include refiners' syrup.

Q. Very well, we understand that is a separate thing.

A. But this is a general definition of the word syrup. It's a comprehensive word for all kinds of substances which are called syrups.

Q. And the refiners' syrup is defined right above, isn't it?

A. Exactly, and it is inconsistent with the other one, and so is number five inconsistent with the other one.

Q. I will come to that in just a moment. It's inconsistent because it has attached to it the word "refiners'" and the two taken together are stated in the standard to mean something different when "syrup" is taken alone. That is what you mean, isn't it?

A. I mean this. Syrup when described alone without any qualifying term is limited to the product of evaporating the saccharine

juice of a plant to a syrup without removing any of the sugar. Now, the other things do not conform to that definition.

Q. Do you think there would be any difficulty, from your understanding of the terms here, in enforcing the law or in complying with the law on the part of the dealer by using these terms as standards as you find them here?

A. Of course you can make the dealer do anything if you have the law behind you.

Q. Well, those are simple terms: refiners' syrup is defined here plainly, isn't it, and is separated from "syrup"?

A. That's true—

Q. And sugar syrup is separated from "syrup"?

A. But the standards contradict each other.

424 Q. So that you think that all of the term couldn't be complied with?

A. No, I don't say all of them, I say the definition of syrup is a new definition. It has been created by Dr. Wiley and is contrary to the English language, contrary to commerce, contrary to usage and contrary to the general understanding and inconsistent with the other parts of the classification.

Q. Well, you have already given your definition, we won't dwell on that. You think yours is the correct definition?

A. Well, you are asking me for mine. I am not forcing it upon you.

Q. Aren't all of these syrups here characterized by having primarily sucrose in them?

A. Yes, all those that are mentioned as syrups.

Q. And in that respect they differ radically from glucose, don't they?

A. They do. They don't differ radically, because they all contain glucose. They differ in degree, but not in kind.

Q. To the extent that they contain glucose they would be regarded as inferior in quality, wouldn't they?

A. No, I don't see why they should.

Q. Are you using glucose in the sense of dextrose?

A. Dextrose or levulose, either or both.

Q. Containing invert sugar?

A. Yes.

Q. Now, to the extent that in the manufacture of maple syrup or the sugar-cane syrup or sorghum syrup you get invert sugar, you have got an article that you don't want?

A. No, I don't think so. The invert sugar is just as wholesome, just as nutritious as the other kind of sugar.

Q. Haven't you said before that it was a cheaper article than cane sugar?

A. That doesn't make it inferior, because it is easier to produce it.

425 Q. Didn't you say it was cheaper because it wasn't so sweet and that the man who made it couldn't get so much for it?

A. No, it is cheaper because it may be produced cheaper and the manufacturer can afford to sell it cheaper.

Q. It isn't as sweet as cane sugar?

A. No, but sweetness isn't all that one wants. It is as nutritious.

Q. Well, do you wish to have it left here as your opinion, doctor, that it is desirable to get invert sugar in the manufacture of maple sugar?

A. No, I don't say that it is desirable.

Q. Is it undesirable?

A. No, I don't see that it makes any difference.

Q. Then if you had a large quantity of invert sugar in maple sugar it would be just as good as the best quality of maple sugar?

A. I didn't say large quantity; I didn't say that it ever contained a large quantity.

Q. Now, isn't it true that it is desirable not to have a large quantity of invert sugar in sugar cane syrup?

A. What do you mean by sugar cane syrup?

Q. Syrup made by the evaporation of the juice of the sugar cane, or by the solution of sugar-cane concrete and containing not more than 30 per cent of water and not more than 2.5 per cent of ash. That is what I mean.

A. Sugar cane syrup.

Q. Now, I say, wouldn't it be desirable, if that is the article you are trying to get, not to have any large quantity of invert sugar in it?

A. No, for the reason that the process which makes invert sugar makes the flavor better, no more than dissolving the pure white sugar in water.

426 Q. Was this question here nothing more than the dissolving of pure white sugar and water, was that what I read to you? I read to you subdivision 2 under "Syrups."

A. You put a question with it.

Q. Did you understand from my question that it was the dissolving of ordinary sugar in water merely when it states "made by the evaporation of the juice of the sugar cane or by the solution of sugar cane concrete?"

A. Well, the sugar cane concrete is nearly pure sugar. It isn't pure white sugar, but is dissolving sugar, and it is sugar without much flavor, and consequently it would make an inferior syrup to what you would get from a refiners' syrup.

Q. Then according to your statement do I understand you to say that the value of the syrup would be in proportion to the amount of invert sugar you had in it?

A. It would follow that proportion because the process that produces the invert sugar produces the flavor, which gives refiners' syrup and molasses their attractiveness.

Q. I am not talking about refiners' syrup now?

A. Well, that is molasses.

Q. I think you gave an analysis of refiners' syrup in which you had cane sugar 34 per cent.

A. I think that was the figure.

Q. Glucose 28 per cent.

A. Yes.

Q. You didn't mean there commercial glucose, did you?

A. No, I meant dextro-glucose and levo-glucose.

Q. That don't contain any dextrin?

A. No, it don't contain any dextrin. At least I can't say what that eight per cent of organic matter might have been.

Q. Now, aren't all the syrups that are named on page 10 characterized by the absence of dextrin?

427 A. Page 10 of the standards?

Q. Yes, characterized by the absence of dextrin?

A. No sugar cane syrup, if it were made by dissolving sugar cane concrete would contain dextrin.

Q. True dextrin?

A. True dextrin. It is one of the products of inversion. You can't handle cane sugar, dissolve it, boil it down, or boil the syrup down, without producing—did you say dextrin or dextrose?

Q. I said dextrin.

A. I thought you said dextrose. Strike out that answer.

Q. My question was, aren't all these syrups that are named on page 10 characterized by the absence of dextrin?

A. They are.

Q. And that is present in commercial glucose in large quantities?

A. It is.

Redirect examination by Mr. FAIRCHILD:

Q. Will you look at this Exhibit 181 and say if you ever saw that before?

A. I have.

Q. Is glucose some times said to be used as an adulterant of food?

A. It is.

Mr. FAIRCHILD: I offer this in evidence, the first page.

Mr. OLIN: We object to it as wholly incompetent.

Court: What is the purpose of the offer?

Mr. FAIRCHILD: Why, it is to show, your honor, that the name glucose is prejudiced before the public by publications and that a misunderstanding exists among the people as to its true character.

Court: How does that bear on the unconstitutionality of this act?

428 Mr. FAIRCHILD: It will bear on it in this way, if the public has a false idea as to the character of the name with which it is required to be branded, it's a prejudice against the article, it impairs the right of the owner of it in the article. Witness after witness has testified to the fact that there is a prejudice against this article called glucose.

Court: It doesn't appear that any picture or cartoon that may be drawn in a paper is proof of the fact that such a prejudice does or does not exist. For that reason the objection will be sustained.

Exception by defendant.

Mr. FAIRCHILD: I will offer Exhibit 182 and Exhibit 183 for the same purpose, in order to get the record.

Same objection.

Objection sustained. Exception by defendant.

Q. Has sugar syrup a flavor, doctor?

A. Pure sugar has no flavor.

Q. Well, I say sugar syrup.

A. Pure sugar syrup has not a flavor. It is sweet but it has no flavor.

Q. Mr. Olin asked you and you answered that you had no food control chemists in the list of persons from whom you obtained opinions; you started to state why, but was prevented from stating. Will you state why.

Mr. OLIN: Objected to. He did state and it was stricken out.

Court: It was not responsive. He may answer.

A. I didn't go to the men who call themselves food chemists, because I knew that they were all directly or indirectly associated with Dr. Wiley, that Dr. Wiley has made an issue on this point, and that it would be useless to try to get any one of them to give
429 an independent opinion. To use a common expression, they all sneeze when Dr. Wiley takes snuff. I didn't think it would be worth while. I thought it would be time wasted. I didn't think that their knowledge of the subject was in any way superior to that of the chemists to whom I applied, although they call themselves food chemists and some of them occupy the position of food analysts and food control chemists.

Q. Doctor, there are some German authorities, references, that I can't pronounce myself. Will you look over that part of the page and see those references there.

A. Watt's Dictionary was the first. Then there is Beilstein's.

Q. What is the name of the book?

A. Translated into English it is Beilstein's Organic Chemistry.

Q. Is there another on- there?

A. The next one is, to pronounce it in English, Wagner's Hand Book of Chemical Technology, a German book. The third one is Dr. Wilhelm Bersch, "The Manufacture of Starch Sugar," translating the title. The next one is the "Imperial German Board of Food Chemists."

Q. What is that, a report, or something of that kind?

A. The Imperial Board of Food Chemists, appointed to establish official methods of analysis of food products.

Q. I ask you are you familiar with those publications?

A. I am very familiar with Beilstein. He is our most comprehensive author on organic chemistry. Wagner's Hand Book of Chemical Technology I have used in all editions ever since the first edition was published thirty or forty years ago. The next one I have never paid any particular attention to.

Q. Do you know whether those are all standard publications?

A. They are all standard publications.

430 Recross-examination by Mr. OLIN:

Q. Doctor, you stated here as your reason why you did not consult or get the opinions of the food chemists that have to do with the enforcement of the food laws that you thought that when Dr. Wiley sneezed they sneezed also?

A. When he took snuff.

Q. Well, that's a better way of putting it. Your opinion is that such men as Dr. Fischer here haven't got any independent judgment of their own on these matters?

A. I think to a very considerable degree they are bound by official ties and are not entirely free to exercise their own judgment.

Q. Don't you think they are quite as free to exercise their own judgment as a distinguished gentleman may be who is under the employ and special pay of the corporation who is vitally interested in the matter?

A. I don't think so, not when that gentleman never accepts an engagement of that kind unless his conscience tells him that it is the right and just side of the case.

Q. Well, you have devoted considerable time in that kind of service, have you not, doctor, in your life?

A. I have.

Q. Been a witness very frequently as an expert?

A. I have always been ready to speak up in any case which I believed to be just and honest.

Q. Will you state how much you have been paid by the Corn Products Company?

A. I have no objection.

Q. I wish you would state it?

A. I have received \$2,000 for the services I have rendered.

Q. And how much are your charges for the other services that you haven't been paid for?

431 A. Nothing so far.

Q. You haven't presented your bill?

A. No.

Q. You have been present during this entire trial?

A. I have.

Q. And have sat by the side of the counsel for the defendant?

A. I have.

Q. And taken a very active part in the case?

A. I have been very much interested of course.

Q. Your interest is simply in establishing the truth?

A. That's all.

Q. You don't think you have any bias or prejudice.

A. I am quite sure I haven't, because I am independent, my means are independent and I am not obliged to do this work unless it gives me pleasure and satisfaction.

Q. Certainly not, and I don't suppose the men on the other side are obliged to be food chemists unless they desire to be. Don't you think that the opinions of men employed by the departments of the various states in the enforcement of these pure food laws, who

have had experience and discovered the difficulty of preventing fraud and deception, would be of any value in framing a law that should be workable to prevent such fraud and deception?

A. My sympathies are with them in their work entirely, but now and then persons engaged in work of this kind get crooked ideas of certain subjects and are not amenable to reason, and I have found my dear friend, Professor Wiley, in that state of mind. We have been intimate and dear friends for years and years, and yet when it comes to some things in connection with food he is absolutely deaf to all reason. His own colleagues have to differ with him.

Q. You regard him as a very able man?

A. I do, I have the greatest opinion of him and the warmest affection for him, but when he undertakes to do something which I regard as absolutely unjust to the business interests of the country, I have to take a position against him.

Q. Do you know Dr. Jenkins of the Connecticut agricultural college or school?

A. I do.

Q. Do you regard him as an able man or otherwise?

A. Yes, he is a very able man.

Q. Do you know Dr. Frear of the State Pennsylvania College—State College of Pennsylvania?

A. I don't remember ever having met him.

Q. You know of him, by reputation?

A. I have heard his name.

Q. A man who has a high standing, has he not in his profession?

A. I presume so.

Q. Do you know Dr. Scovall, Director of the Kentucky Agricultural College?

A. I do not.

Q. Do you know Professor Webber of the Ohio Agricultural College?

A. I have heard his name.

Q. You have heard, have you not, of the very hotly contested litigation at Cincinnati here this fall with reference to some whiskey adulteration cases?

A. No, I have not heard of any whiskey adulteration cases. I have heard of some whiskey misbranding cases.

Q. Yes, or whiskey misbranding cases.

A. Yes.

Q. Have you learned of the statement Judge Humphrey, United States circuit judge or district judge, made in his decision concerning these men I have been speaking of here, like Dr. Fischer and these other men, Professor Frear and Dr. Wiley?

433 A. I did not.

Q. I have here what purports to be his judgment, part of his opinion, in which he states—

Mr. FAIRCHILD: I object to the statement. That is no evidence at all.

Court: Objection sustained.

Q. Has Dr. Fischer who sits here any official connection, as you understand, with Dr. Wiley or with the department at Washington?

A. I presumed that he had.

Q. Well, you presumed without knowing then?

A. I know that all the agricultural experiment stations and the food investigating stations are more or less affiliated with Washington and that Dr. Wiley attends all their meetings and is on their committees and directly or indirectly has a large influence with them, and more than that, a large proportion of them are young men who have little experience as chemists, they have learned to make analyses and in arriving at opinions which depend on judgment and wide experience they follow the decisions of Dr. Wiley.

Q. That's the way you wish to characterize the other members of this standard committee, is it?

A. I don't wish to refer to them at all.

Q. I asked you about Dr. Fischer and you went on volunteering about other men.

A. You made the question more or less general.

Q. I asked you a simple question, whether you understood that Dr. Fischer had any official connection with Dr. Wiley or the department at Washington?

A. Not an official connection as far as I know, not an official connection.

Q. Have you gained this opinion of those men through personal contact?

A. No, through my general knowledge of what is going on
434 in the food investigation question.

Q. Do you know anything about the ages of the men of that standards committee or of their experience?

A. Some of them I never heard of before.

Q. Well, Jenkins you do know?

A. I know Jenkins.

Q. Do you regard him as a young man?

A. No.

Q. He has done a little analyzing and learned how to analyze?

A. I was speaking of food chemists in general, as you used that term originally when you brought up the whole subject.

Q. I simply asked you the question as before stated and you made that kind — an answer, which wasn't called for at all.

A. Perhaps I did not have it in mind.

Recess until 8:30 A. M., January 2, 1909, at which time the trial was resumed.

435 MITCHELL JOANNES, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Joannes, where do you live?

A. Green Bay, Wisconsin.

Q. What is your business?

- A. Wholesale grocer.
- Q. How long have you been engaged in the grocery business?
- A. From 1872 continuously to date.
- Q. For a time in the retail business?
- A. Yes sir.
- Q. When did you go into the wholesale business?
- A. About 1880 exclusively.
- Q. From 1880 to the present time you have been engaged in the wholesale business continuously?
- A. Yes sir.
- Q. Under what firm name or what name?
- A. For a period of years Joannes Brothers, afterwards Joannes Brothers Company.
- Q. Do you do a large business as wholesaler?
- A. They say so.
- Q. Have you ever dealt in a commodity known as corn syrup?
- A. Yes sir, for many years.
- Q. How many years have you dealt in corn syrup?
- A. For about twenty-five years.
- Q. Continuously?
- A. Yes sir.
- Q. You went to wholesaling in 1880 you said?
- A. Yes sir.
- Q. In what form, beginning at the start of that business did you purchase the article in, what form of packages?
- A. Barrels at first.
- 436 Q. Then later?
- A. Half barrels, ten and five gallon kegs, and later in jacket cans and tin cans of different sizes, from two pounds up to twenty.
- Q. Did you buy this article from any one particular person or firm, or did you deal with different people?
- A. We dealt with the ones that we could do the best with.
- Q. During those years have you dealt with quite a number of different persons or firms?
- A. Several different firms, yes sir.
- Q. Located where?
- A. Buffalo, New York, in the beginning, Marshalltown, Iowa, Davenport, Iowa, Chicago, Illinois, and Milwaukee, Wisconsin, mostly.
- Q. You say Milwaukee mostly?
- A. No sir.
- Q. Those different ones?
- A. Yes sir, those places I mentioned are the principal cities where we bought it from.
- Q. Have you dealt in it extensively, Mr. Joannes?
- A. It is a very common article and the trade has grown on it, has increased highly, so that at present it's considered a staple article in the trade.

Mr. OLIN: I move to strike out what it's considered.

COURT: Strike out that portion of the answer.
Exception by defendant.

Q. What I asked was if you have dealt in it during these years extensively?

A. Yes sir.

Q. Have you any particular brand of your own that has been used on cans?

A. Yes sir.

Q. Have you confined yourself to one brand, or have you had several?

437 Q. In cans mostly, two brands.

Q. What are those?

A. Clover brand and Karo brand.

Q. I show you Exhibit 154 and ask you if that is one of the brands that you have used in your business with this article?

A. Yes sir, we used that very extensively.

Q. Now, when you first began to use it did it have on it the words "With cane flavor" or just the words "Corn Syrup" there? Do you remember when these words "Cane flavor" were put on there?

A. I am not positive on that.

Q. All the rest of the label, state whether the rest of it you are sure of?

A. The Clover brand corn syrup and our name is the principal part we paid attention to.

Q. Now, I will ask you whether you always had this brand where you bought in cans from any other concern than the Corn Products Manufacturing Company?

A. We did have it from other parties.

Q. Was it the same?

A. Yes sir. It was an imitation.

Q. Always bearing the "corn syrup"?

A. Yes sir.

Q. I will show you Exhibit 155 and ask if that is the kind of label that you have used also?

A. Yes sir.

Q. Do you know about the time that first came onto the market, the Karo Corn Syrup, under that name? I don't ask you the date, but do you remember the fact of its coming onto the market?

A. Yes sir.

Q. State whether you begun to deal in it just as soon as it came onto the market?

A. We did, just as soon as it was offered to us.

438 Q. Were you dealing at that time with the Corn Products Refining Company for a part at least of your stock?

A. Yes sir, we dealt with them and its predecessors for a great many years.

Q. How long, Mr. Joannes, would you say that you have been using this Clover brand label?

A. Six or seven years.

Q. And the Karo brand label?

A. About the same number of years.

Q. Do you sell your goods largely through traveling salesmen?

A. Yes sir.

Q. Your establishment is located at Green Bay, Wisconsin, is it?

A. Yes sir.

Q. And has been all this time?

A. Yes sir.

Q. Now, what territory do your traveling salesmen cover?

A. Drawing a line across the state of Wisconsin from Manitowoc directly west, the entire northern part of the state including the northern peninsula of Michigan.

Q. Has that been the case during all these years?

A. Yes sir.

Q. Are all of these salesmen of yours selling this syrup under these brands?

A. Yes sir.

Q. Have been since you have been using the brands?

A. Yes sir.

Q. Now, I will ask you whether this syrup is or is not a very popular article?

Objected to as incompetent, irrelevant and immaterial and as leading.

Q. Under these brands that you have referred to?

Same objection.

439 Objection overruled.

A. They are very popular in our business with our customers.

Q. How does the popularity of these brands compare with the other syrups, sugar syrups, so-called?

A. For the past year and a half we haven't had a barrel of what's called cane sugar syrup in our establishment.

Q. Why?

A. Because the trade on corn syrup has completely taken the place of all syrups of that kind for table purposes.

Q. Well, do you know the cause of that, whether it is because of the price or because of the quality of the article?

Mr. OLIN: Are you going to qualify him as an expert now?

Mr. FAIRCHILD: No, I am getting at his knowledge of his business.

Court: Proceed.

A. We formerly carried the two kinds of syrup, the corn syrup and the cane syrup, in samples side by side.

Q. You mean your traveling men did?

A. In our office, and our traveling men would also carry samples. The trade at the price and the quality would pick out the corn syrup. The trade on corn syrup increased so much that it finally has completely discontinued the sale of cane syrup with us. I think both the price and the quality is what did it.

Q. It is a cheaper article in price?

A. No sir. We attempted to handle an equal priced article in

cane syrup and the trade would not accept it at the same price. The corn syrup, the mixture as it is on the market, seems to give better satisfaction at the same price.

Q. Have you during any of these years that you have been selling corn syrup known that article to be called in the trade by any other name than corn syrup?

440 A. Whatever it has been called——

Q. Now, you understand, Mr. Joannes, what I am talking about, is the mixed article, the article that is put up mixed for table use?

A. Since it has been known as not being a cane syrup it is represented in our purchases and sales as being a corn syrup.

Q. Have you ever known that syrup to be called a glucose mixture?

A. Not in the sale of it to the trade, to customers.

Q. Under what circumstances have you known of it being called a glucose mixture?

A. We understand from the refiners that it was a mixture of glucose and other combinations.

Q. But I mean in your trade with your own customers?

A. With them it has always been understood and represented as corn syrup.

Q. You mean that both in their ordering and purchasing and in your sale?

A. Yes sir. In their orders they would write or speak of "corn syrup" in wanting this article.

Cross-examination by Mr. OLIN:

Q. Mr. Joannes, if I understood you, you stated that you have known of this article, corn syrup, for some number of years, I forgot just the number—how many years did you state?

A. Twenty-five.

Q. That you have dealt in it that long, if I understand you rightly?

A. Yes sir.

Q. Well now, you never dealt in the unmixed article known as glucose did you—you always dealt with an article for syrup purposes?

A. We have had a few orders for glucose.

Q. But your business is selling food products?

A. Yes sir.

441 Q. Now, did you mean that you had been selling it to the retail dealers for twenty-five years under the name and brand of corn syrup?

A. No sir, not under the brand——

Q. Well, that answers the question. What you mean is that you were selling the same article that is now known as corn syrup, but under another name than corn syrup, isn't that the fact?

A. No, sir, it was always corn syrup.

Q. Always corn syrup, I know the article didn't change, but wasn't it branded and sold under some other name, like the various

names that were used for various kinds of syrups until quite recently?

A. We sold it for a great many years under brands of our own.

Q. Well, those brands were what, name some of them.

A. Golden Drip and Honey Drip. We had five or six brands of our own.

Q. Honey Drip and Golden Drip and Fancy Table Syrup?

A. Yes, and White Table Drips and Vanilla Flavored Drips.

Q. Did you name Honey Drips?

A. Yes sir.

Q. And also Cane Syrup at that time?

A. Not that, no sir.

Q. Sugar Syrup—sold it under that name, didn't you?

A. No sir, not the corn syrup.

Q. Well mixtures. Did you sell it under the name of Rock Candy Drips—do you remember that name?

A. Perhaps we carried that a little while. Not long, if we did.

Q. Now, none of those brands contained the name "corn" anywhere, did they?

A. Not for a period of years.

Q. No, not until I think you said the last six or seven years?

A. I think that's correct.

442 Q. Now, upon reflection, Mr. Joannes, haven't you got that time a long—isn't it about not over five years that you have sold it under the name of "corn syrup"?

A. Well, we don't sell it today under the name of "corn syrup." We still retain the brands and sell it under the brands.

Q. Well, are you sure that you sell now under the brand Fancy Drips and those terms?

A. Yes sir, we have it in our stock today.

Q. Aren't you mistaken about that. Wouldn't that be contrary, as you understand, to the law of this state?

A. Not if you comply with the ingredients.

Q. Since 1905.

A. I don't understand that it's against the law to sell it as we have it marked. We requested the refiner particularly to mark it in accordance with the law and to use our brands.

Q. And putting on the percentages of the different ingredients.

A. Yes sir.

Q. You have done that since 1905?

A. And before that.

Q. But now to come back to what I was asking you about. That term "corn syrup" didn't come into use in your business until the last six or seven years, and I asked you whether you hadn't got that a little longer really than the fact is, whether it has been more than five years that you have used the term corn syrup?

A. In selling the article, as I say, we sell it today and have always sold under the brand.

Q. Well, you also use the term now "corn syrup" that you didn't used to use?

A. We always called that corn syrup.

Q. Well, on the brand?

A. Not on the package.

Q. Was it labeled that way?

443 A. It has been labeled "corn syrup" for several years past now, on the package.

Q. But not before five or six years ago?

A. It didn't used to be, no sir.

Q. Now, that was the same mixture that you sell now under the name "corn syrup" wasn't it? That is, you sell now a mixture under "corn syrup" made up of the same elements, we will say, 85 per cent of corn syrup or glucose and 15 per cent, we will say for illustration, of refiners' syrup—you sell that now, don't you as corn syrup?

A. We don't sell it any different than we have always sold it today.

Q. But you sell it with a different brand?

A. Only the word "corn" has been added to it for the past six or seven years.

Q. That is what I was trying to get at. Now that has been added?

A. It has been added, but we haven't changed selling at all.

Q. Excepting that you have that added to the brand?

(No answer.)

Q. In the labels that you use—haven't you?

A. Not on the large packages. The percentage, it shows on the packages.

Q. Now, here is a brand that I understand is gotten up particularly for your use, Mr. Joannes?

A. That is only in cans.

Q. I say in cans that are put into these packages or boxes that you sell to the retailer?

A. But we sell a very large quantity in barrels and half barrels.

Q. Well take it where you use this brand, for illustration—on that you have to the right hand, haven't you "90% Corn Syrup"?

A. Yes sir.

Q. And "10% Refiners' Syrup"?

444 A. Yes.

Q. Now, prior to some five or six years ago you never put on there, did you, any percentage of corn syrup?

A. We didn't handle that in cans until that brand came out and those marks were on there.

Q. You never handled, did you, prior to that date any article on which you put on the brand or on any label for it "corn syrup," designating any percentage, did you, Mr. Joannes?

A. Previous to the handling of those brands?

Q. I have made my question broader. (Question read.)

A. I don't think the percentage was put on until that label came out.

Q. Was the term "corn syrup" ever put on prior to five or six years ago in any of these mixtures that you sold as syrup?

A. Not on the package.

Q. Or anywhere else, as "corn syrup," that term printed or writ-

ten on either the individual can or on the box in which the can was contained?

A. I don't think the words "corn syrup" was on any of the packages until we used the brands Clover and Karo.

Q. Now, I want to get this a little definite. Did you do that prior to five or six years ago?

A. That's when these brands came into use and when the percentage was put on.

Q. You never did it before that?

A. When the law obliged it to be put on, that is the time we commenced?

Q. Well, that I think is correct. Now, in all of your extensive business, Mr. Joannes, prior to that date, this article which is now labeled and sold under the name of corn syrup never had attached to it in your business the term "corn syrup" did it?

445 A. We always sold it under private brands.

Q. Well, can't you answer my question yes or no?

A. The term corn syrup was not on the package.

Q. Now, listen to the question and please answer it?

(Question read.)

A. I believe that's correct.

Q. The same mixture that you have sold these late years with that name attached to it "corn syrup" used to be sold under these other brands, didn't it, as Fancy Drips or Honey Drips or Pride Syrup, Fancy Table Syrup, sold under those various brands, was it not?

A. We don't sell these brands excepting in cans.

Q. Well, the can containing the article has on it prior to the use of the term corn syrup these other names that I have designated, had they not?

A. The cans?

Q. Yes.

A. The cans wasn't put up until these brands came out.

Q. How did you sell it prior to the time these brands came out?

A. In barrels, half barrels and five and ten gallon kegs.

Q. These kegs or barrels then were branded, were they not, under these names I have designated and not "corn syrup"?

A. They were branded with our own private brands.

Q. I don't care whether you call them private or public, they were the names I have indicated, Fancy Drips, Table Syrup, Honey Drips, those terms I have named?

A. Yes sir.

Q. And not "corn syrup" at all?

A. No sir.

Q. Now, you have stated that the competition of this article you have called corn syrup has rather driven out the cane syrup?

A. Yes sir.

446 Q. Do you think that is due in part to the extensive advertising of this article that you have seen in the newspapers no doubt?

A. Not altogether.

Q. I didn't say altogether. In part?

A. I can't say that, because our trade commenced to increase right along each year on the corn syrup from the time we commenced to handle it.

Q. Now, to be perfectly fair with you, Mr. Joannes, do you mean now these last five or six years, or do you mean back twenty-five years?

A. I mean to go back at least fifteen years, that corn syrup was commencing to get a very strong hold on the public and has been constantly increasing.

Q. Now, why do you use that term corn syrup as applying to this business fifteen or sixteen years ago?

A. Because we always bought it as corn syrup and represented it to our trade as corn syrup.

Q. Well, you didn't sell it under that name, did you?

A. The customers when they would come in, we would show them a cane syrup and we would show them a corn syrup and that corn syrup had different brands.

Q. You showed them, in other words, these mixtures that you never labeled in your own business "corn syrup" but you labeled them Fancy Drips, Honey Drips, Pride Syrup, or something of that kind, and you showed them those brands when you talked with your customers and you called it by those names?

A. We had private names also for our cane syrup.

Q. Why did you in talking with your customers designate this article carefully as "corn syrup" instead of designating it under the brand under which you sold it?

A. We didn't do it any more than we did when we sold
447 them cane syrup, but we would explain to them why this corn syrup could be sold for less.

Q. It was a cheaper article, was it?

A. It brought the price—

Q. I mean was it a cheaper article?

A. The same priced goods.

Q. Was it a cheaper article at that time before this term corn syrup came to be used?

A. There has always been cheaper cane syrups than corn syrups, but it didn't satisfy the trade.

Q. Of the same grade or quality? Wasn't the mixture that you sold under these various names a cheaper article than the cane syrup, if you had them numbered 1, 2 and 3 in each case of the same grade, the mixture made from the corn and the other syrup, was it a cheaper article than the cane syrup, prior to the use of the term corn syrup?

A. According to the customers themselves they would select the corn syrup in preference to the cane syrup at the same price.

Q. Can't you answer my question? I ask you whether it wasn't, as far as money is concerned, a cheaper article, of the same grade?

A. Well, the grade is the distinction. The customer would decide on its face in selecting it.

Q. Has the price of that article increased rapidly or quite materially during the last five or six years, the article you now sell under the name of corn syrup?

A. It is higher priced at present than it was several years ago.

Q. Well, it has been increasing, hasn't it, especially in the last three or four years, pretty rapidly?

A. I can't say that, Mr. Olin. It has been standing steady for some time. It would fluctuate according to the corn in our watching the markets.

448 Q. Do you think the article, had it been labeled instead of "Corn Syrup" "Glucose Flavored with Refiners' Syrup," that it would have driven out or would drive out the cane syrup, if that were the way it was branded?

A. Why, I think it would result in too many questions being asked to know what that was.

Q. Yes, I understand. If the article was made up of say 85 per cent. of such as the article I show you here in Exhibit number 1, and with 15 per cent of number 2, and that was advertised to the trade, do you think that this glucose mixture, if it was sold under that term, as "glucose flavored with refiners' syrup," and those percentages put on, that it would drive out the cane syrup in the market?

A. I don't think that it would be acceptable to the trade as well as calling it corn syrup. They know what corn is and they don't know what glucose is so much.

Q. And you don't think that the trade understands that this corn syrup is made from starch, do you?

A. They understand as we represent it, that it is made from corn.

Q. Yes, you don't represent that it is made from starch, do you?

A. We think that would be wrong.

Q. I understand, but you don't represent it as being made from starch, do you?

A. No sir.

Q. You do take pains to represent that it is made from corn, don't you?

A. It is represented so to us and we call it so "Corn Syrup."

Q. It is so represented to you by the manufacturers, isn't it?

A. Yes sir.

Q. As made from corn?

A. Yes sir.

449 Q. And in all the advertisements they furnish it is so represented?

A. Well, before they advertised it was represented as corn syrup.

Q. Well, I know, but take the later years, it is represented to you as made from corn, and you represent to your customers that .. is made from corn?

A. Well, the later years hasn't made any change with us at all in its representation.

Q. And you haven't understood that it was made from starch yourself?

A. No sir, I understood that it was made from corn product.

Q. And not from the starch, that would be just the same, the ordinary corn starch that they — in the laundry, or that they use for table use, you didn't understand it was made from that product, did you?

A. We didn't know just what processes it went through before it was syrup.

Q. I didn't ask you about the processes, but I asked you whether you understood—you know what starch is, don't you?

A. Two kinds, corn starch and laundry starch.

Q. You have handled it a great while?

A. Yes sir.

Q. And you are familiar with the article?

A. Yes sir.

Q. Now, you didn't understand that this very fine syrup that you have been talking about was made mainly from that article, did you?

A. Well, I didn't know how many changes it went through before it became syrup. It might be starch, it might be something else, in the course of the processes, but it originated from corn.

Q. Would it have made any difference with you if you had known that it was just exactly the same kind of an article if it had been made from potatoes instead of corn?

A. Well, if it has been made from potatoes, we should have represented them as "potato syrup."

450 Q. You would have represented it as "potato starch syrup" wouldn't you?

A. Well, that would follow, one of the changes perhaps, in changing it from corn to syrup.

Q. And you think if it was represented under the name of "starch syrup" in competition with "cane syrup" it would drive it out of the market, do you?

A. Not as good as the words "corn syrup".

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Joannes, I understand you to say that for the earlier years in which you sold this syrup, down to within six or seven years, you sold it entirely in barrels, half-barrels, kegs and kits.

Objected to as already gone into.

Objection sustained.

Exception by defendant.

Q. Did you sell any syrups in cans before five or six years ago?

Objected to as having been already gone into and improper cross examination.

Objection sustained. Exception by defendant.

Q. When you stated that in your trading with your customers from the time that you commenced to deal in this article until it came out in cans bearing labels, that it has been bought and sold as

corn syrup, state whether it was so represented to your customers by you and from your customers to you?

Objected to as already gone into.

Objection sustained.

Exception by defendant.

Q. You stated, in answer to a question of Mr. Olin's, that if this article were branded "glucose 85% and 15% refiners' syrup" that it wouldn't sell as well as it would sell under the name "corn syrup flavored with refiners' syrup" in the same proportion. What 451 did you mean by that?

Mr. OLIN: I object to that. It is plain enough what he meant. Objection overruled.

A. We have always represented it as being a corn syrup and if we changed the name why there would be a whole lot of questions to know why we changed the name, and in that way it would hurt the trade.

Q. Well, is there anything in the word glucose that would affect it?

A. Why, I should say so. I shouldn't think the word glucose filled the name so completely as the word corn.

Q. Well, do you know whether the word glucose is commonly understood among such a class of customers as you have in your trade?

Mr. OLIN: Objected to as calling for something that I don't think it is shown that the witness knows anything about.

Objection sustained.

Exception by defendant.

Q. Mr. Olin asked you if the name corn syrup was attached to the sales you made six or seven years ago. You answered no. What did you mean by the word "attached"?

Mr. OLIN: I object to that. That wasn't in the first place, the question that I put. I asked him first whether it was used in connection with the individual can, or in connection with the box afterwards, and he answered broadly "the can".

Mr. FAIRCHILD: Yes, you used the word "attached" there, and the witness evidently understood that he meant attached to a can or something.

COURT: He may answer.

A. Attached as being on the package.

452 Recross-examination by Mr. OLIN:

Q. Glucose, you understand, is perfectly well understood among dealers in food products as to what it is?

A. You mean storekeepers?

Q. Yes. Such gentlemen as yourself?

A. Well, those that deal in it, we deal in it a little, and consequently we are expected to know more than the retailer who don't deal in it, or consumers who don't know what it is.

Recess until 9 A. M. December 31, 1908, at which time the trial was resumed.

453 W. F. SCOTT, being first duly sworn, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. What is your business, Mr. Scott?

A. Food inspector for the state.

Q. Have been for how long?

A. Since December 1905.

Q. You are familiar with what has been designated here as corn syrup and the different brands put out by the Corn Products Company?

A. Yes sir.

Q. You also are familiar with similar mixtures that are put out by other firms?

A. Yes sir.

Q. In what part of the state especially?

A. In the southern part of the state.

Q. Do you know what the fact is under what name or label these different mixtures are sold now in the part of the state that you are familiar with aside from the Corn Product- Company's brands?

A. Yes sir.

Q. Under what name are they sold?

A. They are sold as "glucose flavored with refiners' syrup".

Q. That is, as glucose mixtures?

A. Yes sir.

Q. You have observed that, have you?

A. Yes sir in some instances.

Q. Do you also know whether this brand that has been spoken of here as Golden Glory is being sold at the present time by the retailers?

A. It is.

Q. Exhibit 37, did you get that yesterday morning here from one of the dealers?

A. Yes sir.

454 Cross-examination by Mr. FAIRCHILD:

Q. Did you state that the article is being sold now in the state by the Corn Products Company as glucose mixture?

A. No sir, I didn't state that.

Q. What was your statement?

A. I said that there were products sold on the market as glucose mixtures other than the Corn Products Company.

Q. Where?

A. In the city of Madison here. Also other cities in the state.

Q. What other cities in the state?

A. Why, you can find them in Milwaukee.

Q. Who sells them in Milwaukee?

A. Durand & Casper of Chicago.

Q. Do you —since when—how long they have been selling them?

A. Why, I can't tell exactly the time.

Q. Since the law of 1907 was passed?

A. Yes sir.

Mr. OLIN: We don't contend that it goes back of that under that name.

Mr. FAIRCHILD: The sale of the article under the name of "glucose mixture"?

Mr. OLIN: I shouldn't state that. I meant "glucose flavored with refiners' syrup". You remember some of the brands were changed under the law of 1905, there is evidence that there was written on it "glucose mixture", so my statement ought to be limited to "glucose flavored with refiners' syrup" or with "cane syrup".

Q. You say that this Golden Glory brand is being sold now?

A. Yes sir.

Q. Where?

A. In the city of Madison.

455 Q. By more than one grocer?

A. Oh yes, by a great many grocers.

Q. How have you found it throughout the state?

A. Why, I find it so very extensively.

Q. How long have you known of its being sold very extensively?

A. For the last three years.

Q. They sell other brands I suppose too?

A. Yes sir.

Q. Do they, of corn syrup?

A. Yes sir.

Q. What other brands?

A. Karo.

Q. Is that being sold very extensively over the state?

A. Yes sir.

Q. For the last three years?

A. Yes sir.

Q. How much before that?

A. I couldn't tell you.

Q. You haven't been in the business longer than that?

A. No sir.

456 H. C. LARSON, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Larson, do you know what the fact is as to the sale of this article that we have been talking about here, "glucose mixed with refiners' syrup" etc., under what name it is being sold now aside from the products put out under the brand of the Corn Products Company?

Mr. FAIRCHILD: I want to object to the testimony, I might have done it as to the other witness, that it is incompetent and immaterial

as to under what name this product may have been put out by some dealers since the passage of the law of 1907.

COURT: For what purpose is the testimony offered?

Mr. OLIN: That is the same as we had up once before.

COURT: With Mr. Piper?

Mr. OLIN: Yes, and one other witness.

COURT: It may be received.

Exception by defendant.

Mr. OLIN: The same as we had before, to show that this article was being sold and the law was being complied with, that it was perfectly feasible to do so, except by this company.

Mr. FAIRCHILD: You don't mean every other company, do you?

Mr. OLIN: Why, so far as I know in the state.

Mr. FAIRCHILD: By some companies you mean.

Mr. OLIN: Well, that is my information.

A. Yes sir.

Q. I hand you here a can marked by the reporter 156 and ask you to state whether that is one of the cans put out by Gould, Wells & Blackburn?

A. Yes sir.

457 Q. And it is labeled what?

A. Labeled "Glucose flavored with refiners' syrup".

Q. The top of it being "Morning Glory Brand"?

A. "Morning Glory Brand".

Q. And that has the percentages, hasn't it, of "90% Glucose"?

A. And "10% of Refiners' Syrup".

Mr. OLIN: We offer the Exhibit in evidence.

Mr. FAIRCHILD: I make the same objection that I did to the admission of the testimony.

COURT: Received subject to the objection.

Cross-examination by Mr. FAIRCHILD:

Q. Where did you buy this, Mr. Larsen, Exhibit 156.

A. At Bliss Brothers, down on the corner of Broom and West Doty streets.

Q. In Madison?

A. Yes sir.

Q. That is the extent of your knowledge of the sale of this article?

A. No sir, it is sold at a great many places, merchants in the city, grocery men.

Q. The merchants selling the other brands also, corn syrup?

A. In some cases. I think in one case yesterday I found where they were selling the Golden Glory brand.

Q. Do you know that the same parties are not selling in both cases, or do you?

A. In this particular case?

A. No, in the cases in town here?

A. Yes sir.

Q. Do you know that some are selling this brand, Exhibit 156, and not selling the others?

A. According to their statement they are not. They stated
458 to me that they were not.

Q. This brand of Golden Glory, is it sold extensively here
in the city?

A. Yesterday I called on twenty-one grocery men. Seven out of
the twenty-one were handling the Golden Glory.

Q. Some of them handling none at all?

A. No sir, they were all handling either one or the other.

Q. I suppose your department has been quite active in warning
grocery men in the city of Madison not to sell in violation of the
law, haven't you?

A. No sir.

Q. Do you know that your department, hasn't been?

A. Not of my own knowledge I don't; I haven't.

Q. Are twenty-one all the grocery stores in Madison?

A. No sir.

Q. How many grocery stores would you say there were in Madi-
son?

A. I haven't the data at hand. I couldn't tell you.

Q. Had you any reason for not visiting the balance of them?

A. Yes sir.

Q. What was your reason?

A. I didn't have the time yesterday.

Redirect examination:

Q. Did you call on the larger dealers, grocery stores?

A. Yes sir.

Q. In the more central part of the city?

A. Yes sir.

Q. You didn't select any particular number?

A. No sir.

Q. As I understood you, seven of the twenty-one were selling the
Corn Products Company's brands?

A. Seven were selling the Golden Glory.

Q. I thought you said corn syrup.

459 A. The Golden Glory brand of corn syrup. Two of those
number were out of the goods, but had ordered and expected
it in yesterday, and said they had no reason to believe they wouldn't
get it. Only five had it on hand.

Q. But you included the other two?

A. Yes sir.

Q. Do you know whether any of these other fourteen were selling
other brands of this company?

A. I think one, I didn't take the data, but I know one was selling
the Karo brand.

Q. One of the fourteen others?

A. Yes sir, as I recall it now.

Q. Do I understand the other thirteen were not selling this mix-
ture under the name of corn syrup?

A. I didn't take the data to be definite, but in the majority of

cases they were selling it as "glucose flavored with" whatever the flavoring was.

Q. You were asked whether you hadn't been industrious, or the department in threatening a number of people here in the city to obey the law. You said you hadn't yourself?

A. No sir.

Q. Do you know what the policy of the department has been on that?

A. Yes sir.

Q. What is it?

A. It has not been to threaten the dealers in any way in that respect.

Q. You were instructed in that way, were you not, by the commissioner?

A. Yes sir.

Q. And not to give or attempt to give to the dealers any interpretation of the law?

460 A. No sir.

Q. And what reason do you know actuated or was the cause of this instruction?

A. Mr. Emery has always held to me that the question of interpretation of the law etc. is for the court.

Q. Well, on the question of your not threatening any one?

A. Why, with reference to this particular case the threat came to us in fact, I saw the letier myself, on the part of Gould, Wells & Blackburn—

Q. Well, I don't think you ought to go into that, just leave that out. My point was, why, if any reason, was given to you by the department or your chief officer there, Mr. Emery, why you shouldn't make any threat of that kind.

Objected to as immaterial.

Objected sustained.

Recross-examination:

Q. Did you say you had called on only one grocer here in town that sold Karo Corn Syrup?

A. No sir, one dealer out of the fourteen was handling the Karo yesterday. I didn't take the data, and I couldn't say definitely.

Q. You don't know how many in town here are handling Karo, do you?

A. I do not, no sir.

Q. This Golden Glory, do you know how many are handling that brand?

A. If I recall now, with the exception of the one, the fourteen were handling the Morning Glory, seven were handling the Golden Glory.

Q. What is this Morning Glory?

A. "Glucose flavored with refiners' syrup" as I recall the label, put out by Gould, Wells & Blackburn.

Q. Do you know who manufactures this Morning Glory?

A. Not of my own knowledge, no sir.

461 Q. Well, is it put up here for somebody here in town?

A. It is put up for Gould, Wells & Blackburn.

Q. Is that the gentleman who was on the stand yesterday?

A. Yes sir.

Q. Is this the only brand that was being sold here in town, the Morning Glory brand, of this glucose mixture I mean?

A. That is all the brands that I have recollection of now sold as "Glucose flavored with refiners' syrup". There are other glucose mixtures, molasses, etc.

Q. But they are all put up for Gould, Wells & Blackburn, are they not and they distribute them?

A. My recollection is as you state it, yes sir.

Q. Well, has this brand been approved by your department?

A. I don't know anything about that.

Redirect examination:

Q. Just a question, I don't know whether you understood or not. Do I understand you to say that all these glucose mixtures that are now being sold under the name of glucose mixtures, that is, "glucose flavored with any other syrup or any syrup" are they products of this Corn Products Company or put out by them, or are there other companies or dealers that are putting up this product?

A. There are other dealers putting out this product. I answered that question relative to that particular brand.

Q. What other companies, while you are on that, that you know of, are selling this mixture under the name of glucose flavored with cane syrup or refiners' syrup etc.?

A. The products are being distributed from other parties, but I can't give you definitely now the names.

Q. Franklin Mac Veagh?

A. I think Franklin Mac Veagh is putting out a brand in the state quite generally, but I wouldn't be positive whether or not Reid Murdock & Company is not putting out one also.

462 Q. How about Durand & Casper?

A. Durand & Casper are, yes sir.

J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, do you hold any position now with reference to the State and National Association of Food and Dairy Departments?

A. Yes, sir.

Q. What position?

A. I am president of that association.

Q. You were elected at the meeting at Mackinac?

A. Yes sir.

Q. You have been a member of this association for how long?

A. I joined the association at the first in St. Paul in 1903 and

I have attended all the meetings since except the one at Portland, Oregon.

Q. You have heard, have you not, of the hearing before the secretary at Washington, Secretary Wilson, together with the other two secretaries, some time after the standards were fixed that have been referred to in June, 1906?

A. Standards fixed by the association, do you mean, or by the secretary?

Q. No, that were fixed by the department upon the recommendation of the committee?

A. Yes sir, I have general knowledge of that.

Q. Do you know whether the national association you have referred to, of which you are now president, was in any way consulted at the time of that hearing?

A. I was not.

Q. Or was given any opportunity to be heard?

463

A. I was not.

COURT: Are you referring to the hearing that preceded the ruling by the three secretaries?

Mr. OLIN: Yes, and ended in that ruling.

Q. You are not a member, are you, of the Association of Agricultural Chemists?

A. No sir.

Q. You are not a chemist at all?

A. No sir.

Q. Were you present at the meeting at St. Paul of the association that you are now president of, in 1903?

A. Yes sir.

Q. Did you hear the paper delivered at that meeting by Dr. Wagner?

A. I did.

Q. Perhaps I didn't ask you this question, Mr. Emery. You stated as to the legislature of 1905, and were familiar with the legislation, I think, of 1907?

A. Yes sir.

Q. And you are familiar with the national pure food act?

A. Yes sir.

Q. Was there some discussion about there being any inconsistency between the national pure food act and the legislation of Wisconsin as it stood in 1905 on the question of the proper labeling of mixtures?

A. Yes sir.

Q. Well, now on that question of mixtures I wish you would state what the discussion was.

A. The Wisconsin law on glucose mixtures requires that the products be labeled—

Mr. FAIRCHILD: I object to that as entirely immaterial.

464 Mr. OLIN: The law shows for itself. There is nothing harmful about that. That is just simply preliminary.

Q. Go on.

COURT: Just state the discussion.

Mr. FAIRCHILD: Where was this discussion?

A. The discussion was in my office, and the discussion was also before a committee of the legislature.

Mr. FAIRCHILD: How can the defendants be bound in any way by discussions occurring in Mr. Emery's office about the construction of the law.

Mr. OLIN: No, it isn't the construction of the law.

Mr. FAIRCHILD: Well, you asked if there was any conflict.

Mr. OLIN: Well, not that there was any question as to the construction of it, but that they should be changed in a certain way so as to cover these mixtures.

COURT: Well, is anything competent except the fact that there was such a discussion?

Mr. OLIN: Well, I think the law will supply the rest.

Q. There was a discussion on that subject?

A. Yes sir.

Q. Now, will you state what that in substance was.

Mr. FAIRCHILD: I object to it as incompetent and immaterial.

COURT: He may state it subject to the objection. I will later consider whether it may have any bearing on the case.

Exception by defendant.

A. It was contended there by representatives of the Wisconsin Wholesale Grocers Association, and Chicago dealers, that under that statute they couldn't bring into the state those mixtures lawfully under the national law and they desired the law so that they could lawfully come in the state. This they held under a ruling of Attorney General Bonaparte that in cases of mixtures or compounds 465 pounds the names of all the mixtures should be included in the label, and they sought a law that would allow them to come into the state and not be in conflict with the national law as interpreted and administered by the board of food and drug inspection.

Mr. FAIRCHILD: I ask that that be stricken out as incompetent, irrelevant and immaterial. These defendants can not be bound by any statements that was made of the desire of anybody that the law should be this way or that way, or by anybody's interpreting the law.

COURT: My present impression is that the testimony should be stricken out, but it may stand subject to the objection and the motion.

Exception by defendant.

Cross-examination by Mr. FAIRCHILD:

Q. What office did you say, Mr. Emery, Mr. Ladd of North Dakota held in connection with the national association?

A. Last year he was president of that association and the year preceding he acted as president, having been vice-president; the former

president's term of office having expired he ceased to be a member of the association and Mr. Ladd took his place as president.

Q. Was he a member of any committee acting upon the so-called standards?

A. He was by vote of the association made the chairman, as I recollect it, of the committee. On standards, did you say? What standards do you refer to?

A. Standards adopted or said to have been adopted by this national association; state and national food commissioners.

A. At the Mackinac meeting, Dr. Ladd, president of the association, by vote of the association was made chairman of the committee on preparing a state food law bill to adopt and use the standards adopted at that meeting, as I recollect it.

466 Q. Was he connected in any way with the action of the association at Jamestown in regard to standards?

A. He was not a member of the standards committee, as I recollect it, no sir.

Q. Well, the same standards, were they adopted at Mackinac?

A. As adopted where?

Q. As were adopted at Jamestown?

A. My recollection is that the standards that were adopted at Jamestown were readopted with possibly a slight change, I can't swear positively in regard to that, and some additions.

Q. Well, were there any changes made in that part of the standards relating to glucose?

A. Over those adopted at Jamestown?

Q. Yes.

A. My recollection is not.

Q. But Mr. Ladd did serve at Mackinac on the committee?

A. No sir, I don't say that. There are so many standards committees that we have to be careful and don't confuse them. The standards committee of that association and the joint association of agricultural chemists is one committee on standards, of which Dr. Ladd, as I understand it and as I recollect it, has never been a member.

Q. Well, I understood you to say that he was chairman of the committee at Mackinac, wasn't he?

A. Of what committee?

Q. On standards.

Mr. ORIN: You have got confused. He was on the committee, as I understand, perhaps chairman of a committee, that had entrusted to it the duty of preparing a uniform food law to propose to the legislatures that are to meet this coming year, and that committee has proposed this bill, a copy of which we have produced.

Q. Well, he was at the Jamestown meeting was he not?

467 A. Yes sir. He presided at the Jamestown meeting.

Q. Was he there presiding at the time the standards were adopted?

A. Yes sir.

Q. Well, was there any discussion at that time on the standards or

on any particular standard, or were all the standards presented and acted upon as an entirety?

A. My recollection is the report was considered and acted upon as an entirety, at the Jamestown meeting.

Q. There are several hundred different standards, so to speak?

A. I can't state the number.

Q. But you would say that was true, would you not, it was a very extended document?

A. Well, in one sense it is. I couldn't give the number; I wouldn't undertake to give the number.

Q. You stated that that was adopted unanimously?

A. That is my recollection. There was no opposition to it, no vote against it, as I think I stated.

Q. Well, is Mr. Ladd a chemist?

A. Yes sir.

Q. He is commissioner of North Dakota, is he?

A. He is the food commissioner of North Dakota.

Q. Has he always taken a prominent part in the proceedings of the national association?

A. He has always been considered a very strong member of the association.

Q. And was he actively concerned in any way in this proposal that a committee be appointed to prepare a uniform state food law?

A. My recollection is that that recommendation came in his report.

Q. Recommendation of the Mackinac meeting?

A. That is my recollection. I can't swear to it positively, but that is my recollection.

468 Q. Will you please look at Exhibit 157 and state whether you have seen that before?

A. I have no distinct recollection of it as a separate document. I presume that I have seen it in my office and studied it.

Q. State what that is?

A. This is what I understand to be the bulletin on the food laws of the agricultural department of the college of North Dakota.

Q. And including what as headed there?

A. Food and Drug Laws. I can't say that I have any recollection of this special bulletin, but I think I have received it. I have received his bulletins as I have received the reports and bulletins of other commissioners, but that that distinctly made an impression I have no recollection.

Mr. FAIRCHILD: In addition to what Mr. Emery read follows: "Food and Drug Laws." Then follows "The pure food law amended and reenacted, and pure drug law amended and reenacted." "Rulings and discussions by E. F. Ladd, Chemist and Commissioner."

Q. Have you ever noted his discussion of the question of syrups and molasses and glucose?

A. In his report?

Q. Yes.

A. I don't think that I have. I remember he stated to me once that he sustained my position.

Mr. FAIRCHILD: I will offer in evidence this document, calling particular attention to what occurs on page 18, "syrup, molasses" etc. under that head.

Mr. OLIN: We object to it as wholly irrelevant and immaterial, and the witness is not here.

Court: What is the purpose?

Mr. FAIRCHILD: Mr. Ladd, as is shown, was in this meeting in Jamestown, and the standards as adopted, so far as they relate to glucose, do not give any synonymous name or synonym for
469 that word, but simply denominate it "glucose" and he has just stated that Mr. Ladd endorsed his position. Now, Mr. Ladd in this discussion here specifically names this article in this way, not only as a syrup, but as "corn syrup."

Court: It may be received.

Mr. OLIN: The objection to this is that it is made by an outside party. We haven't in any way sought to show anything other than it turns out that he was upon these committees. Now, if they wish to show that he holds a different view, I think they ought to produce him as a witness. If they did, we would be able to show — an examination of Dr. Ladd that he has changed his views decidedly since he issued this bulletin, and that those views that he expressed there in that bulletin are not his views today. That bulletin was issued before the Jamestown meeting and of course a year or more before the Mackinac meeting. He, like many others, has gained new light since that time.

Court: I have adopted rather a liberal policy in letting all this come in.

Mr. OLIN: We will have to be permitted to follow it up and show what his present views are, by his admissions.

Court: The ruling may stand.

Mr. FAIRCHILD: I will read this right into the record. "Glucose syrup or corn syrup is a product of the action of acid on starch and it must be free from acids or sulphites."

Q. Do you know whether this bulletin number 6 has ever been revoked by any other publication?

A. I couldn't testify to that. I have made no special study of Mr. Ladd's bulletins on those points.

Q. You were present, were you, at the time that Dr. Wagner delivered his paper before the Jamestown meeting on corn syrup?

A. Yes sir.

470 Q. You have heard it?

A. Yes sir.

Q. That was reported in the proceedings of the meeting, was it?

A. Yes sir.

Q. You have seen the printed volume of the proceedings, have you?

A. Yes sir.

Q. You have seen in that volume, haven't you, Dr. Wagner's paper?

A. Yes sir.

Q. I show it to you on page 340 of this publication, if you will just look at that, and I ask you whether that is it?

A. Yes sir, that is his paper.

Q. Did you hear any objection made at Jamestown by anybody to the use of the word corn syrup as applied to this article?

A. Without the proceedings before me I can't recollect to answer that.

Q. I am referring to the proceedings that were had at the time?

A. I don't think the paper was discussed.

Q. You made a statement, did you not, in regard to why the Corn Products Company didn't want to use on their labels the word glucose?

A. Without the report before me I can't recall my statement. I have been in a number of those meetings and I can't specifically recall it.

Q. Didn't you state at that meeting, to be found on page 344 of this report of the proceedings: "I remember at one of our meetings one of the men who represented the Corn Products Company said, one reason among others for not coming out with the word 'Glucose' on their labels was because of the prejudice among the people against it. They had a prejudice against it, and so the glucose people didn't use that word on their labels."

A. Well, that statement has been made to me and I presume I made that statement?

Q. This, Mr. Emery, is where I was reading from, right there, (showing book to witness).

A. I think that is substantially correct.

Q. Well, you said at one of your meetings, what meeting did you refer to?

A. One of the meetings of the representatives of food men now in my office relating to the labels for these products.

Q. This meeting was held at Jamestown, when, do you remember, July 1907?

A. I think so.

Q. Previous to the holding of this meeting of this association at Jamestown the Wisconsin legislature had passed the act of 1907, hadn't they?

A. Yes sir.

Q. That was July 13th?

A. Let me see, this Jamestown meeting was 1907?

A. Yes, July 16th to 19th, 1907, and the legislature had then passed the law of 1907?

A. Yes.

Q. Now, when was this meeting in your office that you referred to?

A. My recollection is that it was in the fall of 1905, the same time when those labels were delivered to me. That's my recollection of it.

Q. Were you discussing the law of 1905?

A. At that time, yes. That's my recollection. I am giving it according to my best recollection.

Q. Your discussion hadn't any reference to the law of 1907?

A. Not according to my recollection, no sir. I think that that paragraph will bear out that interpretation.

Q. That is, you think it refreshes your recollection?

472 A. Yes sir, I think the context will show that to be correct.

Q. Do you know who that representative was?

A. As I said on the stand the other day, I am not positive about it. My recollection is that Dr. Wagner came to me at one time, and I think that Dr. Wagner is one of the persons, but I can't swear to that positively. There has been too many men in my office.

Q. Dr. Wagner made a statement there, didn't he, in connection with your statement, that the Corn Products Company had corrected the labels that they were putting out?

A. Dr. Wagner in a conversation with me admitted the statements that I——

Q. No, just wait a moment. Dr. Wagner stated there in that convention, did he not, or meeting of the association, following your statement, that the Corn Products Company had corrected the labels that they had put out before, such as Honey Drips and the others that you have referred to on the witness stand, and that all manufacturing concerns were attempting to put out honest labels and complying with the law.

A. That is my recollection——

MR. OLIN: Let me suggest, Mr. Fairchild, you are taking a good deal of time, I don't think it is proper, but I won't object to your reading the whole of that discussion, beginning on page 344 and ending on page 345; that will show the exact situation.

Q. And you stated, did you not, in answer to the short statement made by Dr. Wagner that the report as made by him was very gratifying?

A. If those things were true, yes.

Q. Well, it was a fact, was it, that Dr. Wagner held out the idea that those labels were put out by the predecessors of the company that he was then representing?

A. Yes sir, he represented that.

473 Q. And that his company was trying to correct that, and that was the statement to which you made the response that that report was very gratifying?

A. That was the way I understood it, that he was speaking of the company he was representing, and that my remark was that if those conditions were being changed, it was very gratifying to learn it.

Q. And you understood that the company he was representing at that time was this Corn Products Refining Company?

A. Well, that company has changed so often that I confess I don't know exactly who it was or when it was?

Q. Now, were the labels that were being used under the law of 1907 presented to you for approval by the agents of the Corn Prod-

ucts Company, Manufacturing Company or Refining Company, whichever it happened to be at that time?

A. I don't think I quite understand your question now.

Q. Were the labels that were being used in their business in Wisconsin by the Corn Products Manufacturing Company or the Corn Products Refining Company under the law of 1905 brought to you for your approval as an official of the state?

A. The question was opened by different jobbers through correspondence and following the correspondence and discussion various labels came to me for consideration.

Q. I will ask you if you had presented to you Exhibit 131 for your approval as an official of the state?

Mr. OLIN: Now, that there may be no misunderstanding, you don't contend, do you, that any of these labels were submitted to Mr. Emery for his approval after the law of 1907 was passed?

Mr. FAIRCHILD: No, 1905. That is my question.

A. My recollection is that it was a label of this kind, after discussion and when others had been rejected, was presented for my approval and that it was approved, or the statement was made
474 that the product under that label under the law of 1905 would not be contested by the dairy and food commissioner.

Q. Was this Exhibit 154 presented to you for consideration and approval and did you not approve it?

A. I don't think the label in this form was presented to me for approval in 1905.

Q. Was it presented to you in any form substantially like that which included the words "corn syrup"?

A. I presume—now, not saying that I remember this specifically you understand, but it's entirely probable that this label was presented without the words "with cane flavor", if it was presented after the law of 1905, it was approved. There was certainly no guaranty under the food and drugs act. The label as you handed it to me was not approved by me in 1905.

Q. This label now contains "with cane flavor."

A. That was not on it.

Q. And "Guaranteed under the food and drug act of 1906."

A. That was not on it.

Q. That would indicate then that it was presented to you for your approval prior to June 30, 1906?

A. Well, I have no distinct recollection, but I think it was, and I am willing to say that if it had been I should have approved it, I wouldn't have thought of bringing a prosecution on that.

Q. You are not certain, are you, that it wasn't presented to you, even after the law of 1906, the federal law?

A. I am sure that label in that form never came to me for approval.

Q. But a label like that with "corn syrup" on it was, you think, approved by you?

A. I think so.

Q. Was this Exhibit 155 presented to you for your approval, and did you approve it?

475 A. I can bring some labels from my office that I can swear to, but I don't want to swear to these, that I can't recognize or compare them with those in my office.

Q. Then I will ask you this, have you approved a label bearing the words "Karo Corn Syrup", indicating that it was produced by the Corn Products Refining Company of Davenport, Iowa?

A. Now, will you let me see this other Exhibit. May I make a statement to the court?

COURT: Certainly.

A. There is a number of questions in this law of 1905, it involves the type, the size of the type, the color of the type, and I cannot recall here these labels that come to me, whether they had all these forms of type. Many of these labels came to me that had the "glucose mixture" or "corn syrup" with a statement of the percentages in the type prescribed and were approved of course of necessity. This "corn syrup with cane flavor" as I recollect it does not comply with that and I don't think any in that print or style ever came to me? (Referring to Exhibit 154.) This Kairomel Corn Syrup, I don't think that label came to me in that form. I don't think the type here is in accordance with the terms of that law.

(Last question read.)

A. Now about whether it is Corn Products Company of Davenport, Iowa, I couldn't tell that. I tried to find out from Mr. Wagner in relation to that, I insisted under the statute it required the true name of the producer on the label. I approved it subject to an investigation showing that those were the real proprietors and they agreed to make it sure—

Q. That's all then.

A. Now, I want to make one more statement, I want to state the truth here—that Karo Corn Syrup label, if it came to me and met my approval, must have had the type, the percentages of either
476 corn syrup or glucose and of cane syrup or refiners' syrup, and I made the approval subject to the test in our laboratory confirming the truthfulness of the statement.

Q. Now, Mr. Emery, I didn't ask you that question. Just please confine yourself to my questions. I asked you if you approved a label with the name "corn syrup" on it. That is all I asked you. Now, did you or did you not?

A. I have tried to answer that question.

Q. I ask you now if you did.

A. I did subject to those conditions.

Q. I will present to you or show you Exhibit 138 and ask you if you approved a label like that?

A. No sir, not in that form.

Q. Did you approve a label bearing the words "Rex Corn Syrup"?

A. Probably I did, if it had the other letters on it, or the other portions of the requirements of the law.

Q. Well, you were presented a label for an article purported to have been manufactured by the Corn Products Manufacturing Company.

A. Well, whatever I found to be on the label as the proprietor or the producer I approved, I can't swear what they were.

Q. I will ask you if you had presented to you a label like Exhibit 139 and whether you approved it?

A. Not in that form, no sir.

Q. In what respect?

A. That lacks the percentages stated in the type required by the law.

Q. You did approve, did you, a label of Santee brand corn syrup?

A. Yes sir, having the other requirements of law on it.

Q. That is, you mean later the requirements of the law was complied with?

A. The requirements of the law of 1905.

477 Q. Yes, that is what I mean. I will show you Exhibit 142 and ask you if you approved a label like that?

A. Not in the form it is presented here, no sir.

Q. I suppose you refer now to the type?

A. That doesn't contain all the requirements of the law of 1905.

Q. In what respect do you mean?

A. It lacks the percentages in the type required by that law.

Q. Yes, in the size of the type?

A. And the color of the type. It was not only size, but color.

Q. Did you approve a label "Atlas Corn Syrup"?

A. My recollection is that I did.

Q. That was made to comply with the law?

A. Yes sir.

Q. I call your attention to Exhibit 141 and ask you if a label like that was presented to you for your approval?

A. Not in the form it is there or in the words it is there.

Q. What do you mean?

A. I mean the words "with cane flavor" was there, and that it was lacking the other requirements of the law.

Q. In what respect?

A. In the lack of the size and the color of the type giving percentages, that I recall especially.

Q. Now, I will ask you if you approved a label for "Crescent Corn Syrup, Produced by the Corn Products Manufacturing Company"?

A. Not as presented there. Yes, I did approve of a label under that general name.

Q. That was afterwards corrected?

A. That was made to have the type and the statements required by the statute of 1905. Now, I wish to make one additional statement, if you please, that when these were presented to me the statement was made that if these upon analysis in our laboratory were found to be true to label, there would be no contest made on
478 the part of the dairy and food commissioner. I would like to make another statement in that connection.

Q. Well, Mr. Olin will probably give you an opportunity to. Can you give us approximately, Mr. Emery, the date when these labels were approved by you that I have called your attention to as being put out by the Corn Products Manufacturing Company?

A. Well, the discussion of that began, as I recollect it, in July of 1905 and continued quite indefinitely. Probably the bulk of the correspondence and the conferences were had before the 1st of October, 1905, when the law, as I recollect it, took effect. That is my general recollection of it.

Q. The law took effect in October?

A. That is my recollection of it. I am giving it according to my best recollection.

Q. That is, you think that these labels that you referred to were all fixed up and prepared to your satisfaction before the law went into effect?

A. Well, no, I think that there was labels came to me after the law went into effect.

Q. And that I called your attention to?

A. Well, I wouldn't say that. My recollection is that preceding October of that year, that in the main these labels as you have presented them and the answers given as I have indicated took place before the first of October.

Q. Well, the state of Wisconsin had no so-called pure food law, did they, affecting glucose or corn syrup, prior to the act of 1905.

A. I think it did. I think that our general statute, as amended by the legislature of 1903, affected that product in its provision where it required that the exact character and composition should be disclosed on the label.

Q. Well, the food department of the state didn't interest itself, did it, in the matter of labels before the act of 1905 was adopted?

479 A. I don't understand your meaning of the words "didn't interest ourselves in the matter of labels".

Q. I mean take an active interest in trying to have labels, so far as ingredients were to be stated, to comply with any statute that you thought had effect on the subject?

A. Why, yes sir, the state didn't have what you may call a label law, but the law did require that certain articles, to escape being adulterations, should disclose their true character and condition. That was the amendment of 1903, and we did take an interest in that proviso of that law.

Q. I didn't mean take an interest in it, I meant actively interest yourself in seeing that the law was complied with in that respect?

A. Yes, we did. Of course the department at that time was small in number, we were crippled, but we had worked along those lines, as I think my report will show.

Q. Well, you were not up to the time the law of 1905 was enacted particularly well informed, were you, as to the extent to which this product known as corn syrup or glucose was being sold in the state?

A. We learned that mixtures of sorghum with glucose—

Q. Now, Mr. Emery, that isn't my question.

A. I don't think that our attention had been given particularly to corn syrup up to the time—beginning somewhere in 1904.

Q. Well, was that immediately before the legislature of 1905 met?

A. I can't answer that distinctly. I had one food inspector and

he was doing what he could in the market, and the question of corn syrup was not the question we had received our specific information on, it was the question of other mixtures that we thought were falsely labeled and fraudulently being sold.

Q. I am confining my examination to corn syrup. After the law of 1905 was passed you very actively concerned yourself in 480 its execution, did you not?

A. Yes sir. I had a force of ten people at it. At the same legislature a force of ten people were added to the commission to help enforce the laws.

Q. So as to help carry into execution this law?

A. Well, all of the food laws.

Q. And you required the labels that were being used after the act of 1905 went into effect to comply with that act?

A. Yes sir, to the best of my ability as an officer.

Q. You stated in answer to a question by Mr. Olin that Dr. Wagner and Mr. Host and Ira B. Smith came to you for a general approval of labels. Was that the time that you refer to, before the law of 1905?

Q. My statement was not that they came together. My statement was that I could remember that those men came to my office. A good many food men came there; I can't recall who they were, my office was almost besieged at times, and I can't undertake to remember who they were, but I remember those men calling at different times.

Redirect examination by Mr. OLIN:

Q. I think you said, Mr. Emery, that Dr. Ladd presided at the Jamestown meeting?

A. Yes sir.

Q. To refresh your recollection as to whether there was any discussion here following the paper of Dr. Wagner on corn syrup, beginning at page 340 and ending on page 344, I am handing you the same copy of the book Mr. Fairchild handed you, entitled "Association of State and National Food and Dairy Departments, Jamestown Convention, 1907", and after the end of the paper on page 344 there is headed, isn't there, "Discussion".

A. Yes sir.

481 Q. Now, there is in that discussion a portion of what you said was read?

A. Yes sir.

Q. On page 344?

A. Yes sir.

Q. There had been a remark first by Dr. Wagner to the effect that a reputable manufacturer would not sell glucose under the name of these Louisiana products?

A. Yes sir.

Q. And you replied "Are there any disreputable ones doing it".

A. Yes sir.

Q. And that was followed by a reply from Dr. Wagner?

A. Yes sir.

Q. And then came what you said, and did you say just preceding what Mr. Fairchild read, as follows: "I want to make a statement right here. I have had some experience in this matter: We got a law passed controlling the sale of this glucose, and it brought to my office certain representatives from Chicago, and they were putting on the market mixtures like Old Pride Sorghum and a lot of fancy names like that. Those mixtures had only about 15 per cent molasses in them to my certain knowledge. One was, I think, "Pure Louisiana Molasses" and that wouldn't go in Wisconsin. When the Corn Products Refining Company say they didn't put a syrup out in Wisconsin like that, I know it isn't so. I know they did". That preceded, didn't it, what Mr. Fairchild read?

A. Yes. But I made one mistake in that statement. I made a mistake in the quantity of molasses.

Q. There was in some of them larger?

A. In the molasses were 40 per cent I think.

Q. Then there followed some remarks, did there not, by a man named Dr. Irion in which he said: "I am reminded by this
482 discussion on glucose, of a railway accident which occurred in Louisiana some years ago. Louisiana, gentlemen as you well know, is the place where 'Pure Louisiana Molasses' is supposed to come from. There is a firm of molasses manufacturers in one of the northern cities of the state which sells its product in nearly every state of the Union. Its producer is advertised as Pure Sugar-house Molasses, or Syrup, and it even goes so far as to put the names of the plantations on the label in order to convey the impression that the molasses was made and put up on these plantations. On one occasion a freight train was wrecked near the town, and the largest individual claim for damages, as a result of this wreck, was one from the 'Pure Louisiana Molasses' factory for five bursted tank cars of glucose".

A. Yes sir I remember that.

Q. That was a part of the discussion?

A. Yes sir.

Q. And then there was a further reply by Dr. Wagner that your attention has been called to, that whatever might have been the practice of the predecessors of his company, like the Davenport Refining Company, sending out labels like Honey Drips, etc. their company didn't do it?

A. That is correct.

Q. Now, that was the discussion following his paper, wasn't it?

A. Yes sir.

Q. Does that report show this, immediately after that: "President Ladd: The next paper on the program is one on the 'Need for Uniform Standards among the States and between the State and Federal Government', by Hon. A. F. Hitt, State Dairy, Food and Oil Commissioner" and so on?

A. Yes sir.

Q. And then following right along after that, page 347 of the same session, was the report of the Food Standards Committee?

483 A. Yes sir.

Q. By Dr. Richard Fischer, Chemist, dairy and food Commission, Wisconsin?

A. Yes sir.

Q. And then follows the report, doesn't it?

A. Yes sir.

Q. And on page 378 there is the following, isn't there:

"Mr. EMERY: I move that the report of the Committee on Food Standards as just read by Dr. Fischer be adopted by this association.

Mr. ALLEN: I would like to amend that motion so that the committee as at present constituted be continued.

Mr. EMERY: Yes".

Then another motion was put in, then: President Ladd said, "Yes, it would", referring to another motion. "Is there any further discussion on this? If not, the motion should be seconded". Then follows: "The motion was seconded and unanimously carried". That refers to the adoption of these standards?

A. Yes sir.

Q. Something was asked you further about this discussion of these food standards. The record shows that the only discussion, if you call it a discussion, was on the corn syrup, was it not?

A. I think so, yes sir.

Q. Do you know what the fact is however, as to the general circulation of the so-called Circular No. 19 prior to this meeting at Jamestown?

A. It was generally circulated.

Q. Had that attracted considerable attention?

A. Yes sir.

Q. Throughout the country?

A. Yes sir.

Q. Among food manufacturers and dealers in foods?

484 A. Yes sir.

Q. Now, you are acquainted with Dr. Ladd?

A. Yes sir.

Q. And this was read to you as his bulletin, that it went out from his department, "Bulletin Number 6, April 19, 1907." Glucose syrup or corn syrup is a product of the action of acid on starch, and it must be free from acids or sulphites." Do you know whether it is the present opinion of Mr. Ladd that this article should be named corn syrup?

Mr. FAIRCHILD: I object to that as incompetent and immaterial. That would be simply hearsay testimony.

Mr. OLIN: This is all hearsay, I think.

Mr. FAIRCHILD: This is an official promulgation, and if he changes his opinion as an officer he should correct it in the same way.

COURT: He may answer.

Exception by defendant.

A. Why, Dr. Ladd stated to me that under the laws as they were in North Dakota, he didn't feel it the most important thing for him

to take up the subject of this corn syrup or glucose, but that in his judgment it should be labeled and the proper name for it is glucose.

Q. Now, you have had furnished you, have you not a copy of the proposed act or law recommended for adoption by this committee appointed at Mackinac?

A. Yes sir.

Q. Of which Dr. Ladd is chairman?

A. Yes sir.

Q. Is the document which I hand you now the copy which you have received of that proposed act?

A. This is a copy that I received by mail from Mr. Faust,
485 a member of that committee; I think he is the secretary of that committee, but I am not sure.

Q. On page 16 at the bottom—I have paged this for convenience of reference—is the heading "Syrups" isn't it?

A. Yes sir.

Q. And the subdivision 1 is as follows: "Syrup is a sound product made—"

Mr. FAIRCHILD: I want to object to this. Do you offer it?

Mr. OLIN: Yes, we offer it.

Mr. FAIRCHILD: I want to see it before you read it into the record. (Handed to defendants' counsel.)

WITNESS: Your honor, may I make one explanation of an answer I made?

COURT: Do you want to change or correct an answer?

WITNESS: I think I do, if I can get the answer and the implication, it relates to what may be said as approval of Dr. Wagner's discussion. If it is to be understood that my remarks meant that I approved of their selling that under the name of corn syrup in Wisconsin, that is not my meaning. What I meant to say was that the selling of it under the true name, rather than the selling of glucose under the name of sorghum, Louisiana molasses, Fancy Table Syrup, etc., was very satisfying, very gratifying. That is what I meant to say.

Mr. OLIN: I make an offer first of the subdivision under "Syrups" of subdivision 1, at the bottom of page 16 of this proposed law.

Mr. FAIRCHILD: I object to this as incompetent, irrelevant and immaterial, and specifically. Of course this has no authority, this proposed bill, it doesn't speak the view of any legislature at all, and they are offering to put in here as evidence against these people what somebody proposes to propose to the legislature—some
486 legislature—don't know that it may ever be proposed to any legislature. But here is an attempt to establish an arbitrary name for a household word, to give an arbitrary significance to a household word, and to attempt to limit and confine the meaning of a household word that's used everywhere to designate a thing in common understanding and common parlance that means something altogether different from this, and to attempt to fix an arbitrary, scientific name upon a word of ordinary significance to the people.

COURT: What is the purpose of the offer?

Mr. OLIN: The purpose of this offer is to meet the proof that was introduced by the other side to show the opinion, I suppose of Mr. Ladd as to what he understood the meaning of the word corn syrup, and we wish to show that the same gentleman at a later date, acting as chairman of this committee, has recommended as the correct definition or standard these terms.

COURT: You introduce it wholly then as bearing upon the effect that is to be given to the bulletin issued by Mr. Ladd?

Mr. OLIN: Yes, it means that.

COURT: If for that purpose, it may be received.

Exception by defendant.

Mr. OLIN: "Syrup is the sound product made by purifying and evaporating the juice of a sugar producing plant without removing any of the sugar."

We next offer in evidence the second subdivision under the general head of "Molasses and Refiners' Syrup" on page 16.

Mr. FAIRCHILD: I make the same objection, that it is incompetent, irrelevant and immaterial.

COURT: Let me ask what is the purpose of the offer?

Mr. OLIN: It is the same.

Objection sustained.

Mr. FAIRCHILD: I want to make my objection in full, that
487 this definition of "refiners' syrup" as it is offered is in direct conflict with the definition of "syrup" which has already been given.

Mr. OLIN: The next is the definition which we offer of "Glucose" at the top of page 18, being subdivision 2 under the head "(b) Glucose Products."

COURT: I don't see how that is material for the purpose which you suggest?

Mr. OLIN: Why it covers the other branch of this term "corn syrup."

COURT: I take it your only purpose here is to simply show the weight that shall be given to this bulletin so far as it uses "corn syrup" as a term that is proper. Now, I don't take it that there is any conflict as to what glucose is, and that is not involved in that bulletin.

Mr. OLIN: Well, I interpreted it that it was, because corn syrup covers those two elements, we all agree on that, namely, glucose and the refiners' syrup or flavoring, whatever it is, that is put in. I think that this proof is really all in in this way: the proof as it now stands from Dr. Fischer is that this proposed bill contains the same definitions that were contained in the food standards adopted at Washington in 1906, readopted at Jamestown in 1907, and again adopted at Mackinac in 1908, so perhaps I am wasting my time here.

COURT: His testimony was that so far as the glucose products were concerned, syrups, that he had compared it, and it was just the same.

Q. I think you testified that your attention, if called at all prior

to 1905 to corn syrup, didn't make much if any impression upon you?

A. Yes sir.

488 Recross-examination:

Q. When did Mr. Ladd tell you that he thought the proper name for this article was glucose rather than corn syrup?

A. During conferences with him at Mackinac.

Q. After or before his bulletin was put out?

A. This bulletin you refer to?

Q. Yes.

A. Well, now do you refer to this bulletin that you offered?

Mr. OLIN: April, 1907.

Q. April, 1907.

A. This was in August I think that we were at Mackinac.

Mr. OLIN: 1908, wasn't it?

A. 1908, yes.

Q. Were you speaking to him with reference to the execution of their law in North Dakota as to what he was going to require?

A. I don't know as I can recall how much of that was involved farther than his view as to the proper name for this product.

Q. Did I understand you to say that he said that he wasn't paying much attention to that particular subject?

A. I understood his attitude to be this, and also I think in our conference in Madison last fall, that his attitude had been that he took the law as he found it there and didn't consider that that matter was a matter of such importance as the bleaching of flour and some other things that he was giving attention to, but he considered that glucose was the proper name for that product.

Q. Well, did you talk with him with reference to the decision of the three secretaries, as to whether he proposed to abide by that decision in the execution of their law?

A. I don't know that anything was said specifically on that subject. I can't swear to that.

Q. Would you know his signature?

A. I think I would.

489 Q. Will you look at that and see whether that is his signature.

A. I think that is Dr. Ladd's signature.

Q. Did you say anything to him about his attitude or your attitude with reference to the decision of the three secretaries approving the name "corn syrup"?

A. I don't quite understand your question.

(Question read.)

A. I can't swear whether I did or did not.

Q. You don't remember any discussion on that subject between you at all?

A. I don't remember any specific discussion.

Q. Well, how could you discuss that question in regard to the proper name of glucose without discussing it?

A. Well, we may have discussed it, I can't say whether we did or whether we didn't. I can't swear that I did or I didn't.

Q. You have seen the letter heads I suppose of Dr. Ladd?

A. That purports to be the letter head of Dr. Ladd.

Mr. FAIRCHILD: Well, in connection with his testimony, Mr. Olin, I will offer in evidence this letter, Exhibit 159.

Objected to as immaterial and hearsay.

Objection overruled.

Mr. FAIRCHILD: I will read it into the record:

"North Dakota Agricultural College.
Office of E. F. Ladd, Food Commissioner.

FEBRUARY 19, 1908.

Corn Products Refining Co., 2 East Madison St., Chicago, Ill.

DEAR SIR: I am in receipt of your favor of the 17th giving the ruling rendered of Secretaries Wilson, Cortelyou and Strauss with regard to the term 'corn syrup.' We shall accept the ruling of the United States if the products are further properly labeled so as to comply with the requirements of our state law, viz., with regard to the name of the manufacturer or producer and amount contained in the can."

Q. Have they a law substantially the same as our law of 1905 or 1907, either one of them?

Mr. OLIN: Objected to as not the proper way to prove any law.

Objection sustained.

Exception by defendant.

C. J. DEXTER, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you live, Mr. Dexter?

A. Milwaukee.

Q. What is your business?

A. Wholesale grocery.

Q. How many years have you been engaged in the wholesale grocery business?

A. Since 1880.

Q. Continuously?

A. Yes sir.

Q. What is the name of your firm?

A. Roundy, Peckham & Dexter Company.

Q. What is the territory that during that period you have covered in your sales?

A. We have covered Wisconsin, part of Minnesota, part of Illinois, and part of Michigan.

491 Q. I will ask you if you have any official connection with the Wholesale Grocers Association of Wisconsin?

A. Yes sir.

Q. What is that connection?

A. I am president.

Q. Do you sell your goods usually through traveling salesmen?

A. Yes sir.

Q. How many traveling salesmen have you?

A. Twenty-eight.

Q. State whether in making the sales you go to all parts of the state of Wisconsin, take in all of the towns in the state, practically?

A. Yes sir.

Q. Do you know an article of trade called corn syrup?

A. I do.

Q. Have you ever dealt in it?

A. Yes sir.

Q. How many years have you known it and how many years have you dealt in it?

A. Personally I bought and sold it directly for six years. Previous to that I had known it for a good many years.

Q. How many years has your firm dealt in it?

A. I think ever since we have been in business, or at least since I have been in the business, since 1880.

Q. Do you know of that article being known by any other name in the trade than corn syrup?

A. I don't recall it, sir.

Q. State whether you have bought it and sold it under that name?

A. Yes sir.

Q. And have your salesmen sold it direct to their customers under that name?

A. Yes sir.

492 Q. And in what kind of packages did you sell it?

A. I think in barrels at first.

Q. Afterwards in—

A. Barrels and cans.

Q. Afterwards in cans?

A. Yes sir.

Q. And still continued to sell it in barrels?

A. Yes sir.

Q. When did you first begin to sell it in cans, if you remember?

A. To the best of my recollection, it is six years ago, certainly six years.

Q. You said you sold it in Michigan as well as in Wisconsin?

A. Yes sir.

Q. Do you remember of the law in Michigan some years ago requiring the branding of this article as "glucose"?

A. I think I do, yes sir.

Q. In selling it in Michigan did you have a different brand from what you did in Wisconsin?

A. Yes sir.

Q. While that law was in force?

A. Yes sir.

Q. Did you afterwards change your branding even for Michigan?

A. Yes sir.

Q. Did you change it to "corn syrup"?

A. We changed it "corn syrup."

Q. Have you ever since that time maintained that name?

A. Yes sir.

Q. Have you sold this corn syrup under any particular brand?

A. Yes sir.

Q. I refer now to the cans?

A. Yes sir.

493 Q. I show you Exhibits 162 and 163 and ask you if you sold syrup in cans under those brands?

A. Yes sir.

Q. These are the Golden Glory, Corn Syrup and the Cupid brand. For how many years have you sold the article under those brands in cans? Exhibits 162 & 163 hereto attached and made a part hereof

A. We have sold the Cupid brand I think about five years. The Golden Glory, for a longer period, I couldn't say exactly.

Q. Have you always kept in close touch with your customers?

A. Yes sir, in a way, through our salesmen and in other ways.

Q. From your knowledge of syrups and the sale of them to the consuming public for table use, state whether the consumer would recognize this article that you call syrup as a syrup?

Objected to.

Objection overruled.

A. I should say they did.

Q. You would say they would.

A. I should say they would, yes sir.

Q. State whether it is about the consistency of other syrups that you sell?

A. I think so.

Q. And resembles it in appearance?

A. Yes sir.

Q. And in taste?

A. Yes sir.

Q. Do you know of anything about the article itself as an article of trade which would deceive a customer in calling it syrup?

Mr. OLIN: Objected to: That, I think, is a matter for the court to infer from the evidence.

Objection sustained.

Exception by defendants.

494 Q. State whether these brands of corn syrup have or have not been a very popular selling article?

A. They are popular.

Q. Have been since you first began to sell it?

A. Yes sir.

Q. Do you know of other wholesale grocers in the state handling this same article?

A. I do.

Q. During practically the same period that you have handled it?

A. Yes sir.

Cross-examination by Mr. OLIN:

Q. I think you said, Mr. Dexter, that you have been selling under certain brands for five or six years?

A. Yes sir.

Q. Those brands contain the name "corn syrup" with certain other designations?

A. Yes sir.

Q. I don't understand that you sold these mixtures prior to that date under the name of "corn syrup"?

A. As I recollect it, yes sir, we did.

Q. The separate cans labeled as "corn syrup."

A. Just as those labels read.

Q. Prior to five or six years ago?

A. The glucose label has been for a much longer time before that. The Cupid label has not been, by us. The Cupid label has only been in existence I think about five years. The other has been longer.

Q. Well, the Golden Glory is a brand that was gotten up, wasn't it, labeled by the Davenport Company?

A. One of the refiners, I don't know which one.

Q. It was not gotten up for you especially?

A. No sir.

495 Q. You had nothing to do with that?

A. No sir.

Q. Now, aren't you mistaken, Mr. Dexter, as to the time that that brand has been in use with the words "corn syrup" on it?

A. I think not.

Q. Have you any records with you?

A. No sir, nothing with me; only my recollection.

Q. You are familiar, are you not, with the legislation in this state of 1905?

A. Somewhat.

Q. Prior to that time these mixtures had been sold, hadn't they, under various names like Fancy Syrup, Honey Drips, Pride Sorghum?

A. Yes sir. I think so.

Q. Rock Candy Syrup?

A. I think largely in barrels.

Q. Well, also in cans?

A. Yes, I presume every concern had its own labels.

Q. And it wasn't unlawful to sell them under those brands?

A. No.

Q. Now, let me see if I can't refresh your recollection. Wasn't it substantially after this legislation took place that the use of the "corn syrup" came in?

A. I think not, sir. To the best of my recollection, we sold "corn syrup" before that.

Q. But it wasn't for a very long time before that first legislation, was it?

A. I think so.

Q. Well, about how long?

A. That I couldn't say without the records.

Q. You can't give us any idea?

A. No sir, I can't give you any idea.

496 Q. But you do know these glucose mixtures have been sold for a long time under these various names?

A. Yes sir.

Q. They never had been sold as "glucose" had they?

A. Well, not to my knowledge.

Q. Unless it was in some state where it required it? I think you said something about Michigan having a law. They did have a law at one time?

A. Yes sir.

Q. And while they had that law you complied with it?

A. Yes sir.

Q. And continued to sell your product in that state, but branded it "glucose"?

A. Yes sir, whatever their law was.

Q. You were asked whether in your opinion the purchaser, that is, the consumer I take it, from the retail dealer, would recognize this article when sold as a syrup?

A. To the best of my knowledge he would, yes sir.

Q. You answer that he would?

A. I believe so.

Q. Do you think if the article were sold in the form of Exhibit number 1 that the purchaser would recognize it as a syrup without any explanation made?

A. Well, I couldn't say as to that, sir. We have.

Q. I am just asking your opinion.

A. I couldn't say. It may be so and it may not be.

Q. That isn't the question. The question is whether if a purchaser came into a retail store and called for a syrup and that was handed out to him he would recognize it as a syrup?

A. Well, I couldn't say as to that.

Q. Well, what is your best judgment?

A. If I had to judge on it, I would have to taste it and see
497 what it was.

Q. Now, does he taste these other syrups that he comes in and buys as a rule?

A. Many times. If they haven't, they have tasted it before they buy them.

Q. They generally buy them on the appearances?

A. I presume so, but so far as the can is concerned they never see the syrup until the salesman shows it to them.

Q. But you understand they know what the color is of the syrup generally?

A. I presume they do, yes sir.

Q. And if they were handed out an article of that color you don't think they would buy it?

A. We have sold syrups as light as that (Exhibit 1).

Q. What syrup?

A. Rock Candy syrup, almost white.

Q. Rock Candy Syrup?

A. Yes sir.

Q. Well, that would be exceptional, wouldn't it?

A. Well, it is sold all the time regularly. We always carry it in stock and sell it.

Q. Sold it uncolored?

(No answer.)

Q. Now, if you will taste that, there is nothing bad about it, Mr. Dexter, I will ask you then to state whether they would?

A. (After tasting liquid) Well, I don't know whether I could sell the syrup or not.

Q. It is pretty doubtful?

A. I couldn't tell you.

Q. Well, what is your best judgment?

A. They might sell the syrup.

498 Q. It would be a pretty poor grade.

(No answer.)

Q. You don't really think now, do you, Dr. Dexter, from that taste that that would sell to the public as a syrup for table use?

A. It has a syrupy taste; it isn't as strong as some I have tasted, but it has a syrupy taste.

(Exhibit 5 shown to and tasted by witness.)

Q. Quite a difference between those?

A. That is a stronger syrup than the other, yes sir.

Q. You would have no doubt but what they would buy that as a syrup?

A. Yes sir.

Q. Well, taste Exhibit 160. What would you say as to that?

A. (After tasting). I would say that was a syrup.

Q. Now, there is a very great difference, isn't there between 160 and number 1 that I handed you?

A. Yes, one is much milder than the other.

Q. You know what glucose is?

A. Yes sir.

Q. You have seen it and handled it?

A. I have seen it, but never handled it.

Q. That is, the glucose in number 1?

A. I don't know whether it is or not. I couldn't tell you.

Q. Couldn't tell whether it was or not?

A. No sir, unless I had glucose to compare with it.

Q. Now, isn't it your judgment that the difference between number 1 and number 160 is in the other element that is added to number 1?

A. It is a stronger syrup than the other, if there is a mixture, I don't know whether there is a mixture or not.

Q. Assuming that there is 85 per cent of number 1 in number 160 and 15 per cent of cane syrup added, it is the added syrup from the outside, the cane, that gives the character, doesn't it, to these mixtures?

499

A. It gives the strength undoubtedly.

Q. Well, it gives the peculiar flavor?

A. Not knowing enough about glucose—I don't know enough about glucose to say.

Q. Well, you do know about these mixtures?

A. I know something about them, yes sir.

Q. You have dealt with them since 1880?

A. Yes sir.

Q. You have dealt in them since that time?

A. Yes sir.

Q. Now, isn't it your understanding, Mr. Dexter, that the thing which gives to these different mixtures their characteristic is the particular syrup that is mixed in with the glucose?

A. The syrup that's mixed in makes a very great difference in the taste of the syrup, I know that.

Q. Well, you understand they are made up largely of glucose, don't you?

A. Yes sir, they say so.

Q. Well, that is your understanding in handling them?

A. Yes sir, certainly; the label says so and I understand it so.

Q. And it is your understanding, isn't it, that it is the article that is known as cane or sorghum that is mixed in with the glucose that gives these mixtures their characteristic flavor?

A. It gives the flavor, certainly.

Q. It is that which enables them to sell their syrups, isn't it, to your knowledge as a business man?

A. Why I suppose that is so.

Q. And it is your opinion, isn't it, that you would have 500 very little sale for the unmixed article?

A. I never tried that. Of course I don't know.

Q. You never even have tried that?

A. No sir.

Q. You understand that is a cheaper article, isn't it, glucose, than these mixed articles?

A. I suppose it is, I don't know anything about the glucose part of it.

Q. You said that these different brands that you spoke of you found to be popular?

A. Yes sir.

Q. And that there is a demand for them?

A. Yes sir.

Q. That popularity and that demand is due, is it not, to this syrup that is put into the glucose?

A. Well, I suppose so. I couldn't say that it is positively so, because I don't know that. I suppose it is true.

Q. You say that these mixtures that have been sold under these brands of Golden Glory and other brands, Cupid, and so on, as corn syrup, resemble other syrups—you were asked if they did and you answered that they did, did you not?

A. Yes sir.

Q. You know, do you not, Mr. Dexter, that that which makes

them resemble other syrups is the putting in to the glucose some of these other syrups?

A. Some of them, yes sir, not all of them, at least I didn't understand so.

Q. Well, a mixture.

A. You said rock candy wasn't a syrup.

Q. Rock Candy, I don't mean if it was unadulterated with glucose. If you sell Rock Candy as a white syrup, that don't contain glucose, does it?

501 A. Some times—I am told—I don't know.

Q. There is a syrup, isn't there, known as Rock Candy Syrup?

A. Yes sir.

Q. Now, that would be very sweet, wouldn't it, if it was mixed with glucose?

A. It ought to be sweet, yes sir.

Q. Have you sold that mixed or unmixed?

A. I think both ways.

Q. Usually mixed?

A. It used to be mixed, but not lately.

Q. Not lately?

A. We don't sell Rock Candy Drips any longer.

Q. You couldn't do that under the law?

A. No sir.

Q. That is the reason you stopped it I suppose? That was quite a taking name, wasn't it?

A. Originally, yes sir.

Q. As well as this Honey Drips—that was also quite a taking name?

A. Well, all those names are taking I suppose in a way.

Q. And aside from the name, the thing that made them taking as syrup was the cane syrup or sorghum or maple syrup, whatever it may be, or molasses, that was mixed in with the glucose, wasn't it?

A. Well, I should say it was, but of course never having eaten any myself, I don't know.

Q. I hand you a letter which I will have marked as an exhibit, Exhibit 164, and I ask if that was a letter written by your firm to Mr. Emery as dairy and food Commissioner?

A. Yes sir.

Mr. OLIN: We offer it in evidence as a part of the cross-examination.

502

MILWAUKEE, 9-2-'5.

Mr. J. Q. Emery, Pure Food Commissioner, Madison, Wis.

DEAR SIR: We have a lot of glucose syrup which is composed of glucose and cane syrup, but the percentage printed on the label is not in accordance with the law, which takes effect October 1st. Can we have stickers made to comply with the law as to the size of the letters, figures, etc., and paste them on the labels as they are now? If we can do this, it will save us a tremendous amount of

labor and expense, otherwise we would have to re-label all our cans, and we have a large stock of goods. If this will answer we can have our stock arranged with comparatively small expense, and should be very glad to have your ruling on the subject.

Respectfully,

ROUNDY, PECKHAM & DEXTER CO."

Q. In answer to one of counsel's questions you stated, I believe, Mr. Dexter, that you had always sold this article as corn syrup?

A. If I may be allowed to explain, my recollection of that letter is that we knew it was a glucose mixture, that is, glucose in the syrup, and the label was contrary to the law, the percentages, etc. My recollection of it is we asked for stickers for the purpose of overcoming that deficiency. I may be mistaken, but that is my impression.

Q. You describe it, do you not, in the letter as a "syrup made up of glucose and cane syrup mixed together"?

A. We knew it was glucose and as such it was sold all over the country at that time.

Q. You didn't refer to it at all as corn syrup?

A. No sir, not in the letter, but I don't recall that it was
503 labeled anything but corn syrup, but it did contain glucose and we were not allowed to sell glucose labeled as that was, I mean glucose syrup, labeled as that was.

Q. You spoke of these two elements?

A. Yes sir, because we knew there was glucose in it.

Q. That is, you knew glucose wasn't corn syrup?

A. Well, I didn't know that, no.

Q. Well, how did you happen to know it was glucose?

A. Because glucose was very commonly spoken of and used in connection with it, as well as corn syrup, and there was at the time a question as to whether glucose should be used or not.

Q. Wasn't there more of a question whether "corn syrup" could be used?

A. Yes, that is the way I meant. There was a question with the commissioner about it and we asked simply for an instruction on that subject.

Q. Now, I think, Mr. Dexter, you are mistaken and I will call your attention to a fact and see if it doesn't correct your recollection. Now, don't you know that under the law of 1905 you were permitted to use the term "corn syrup"?

A. I don't recall it, no sir, not without refreshing my memory.

— Now if that is the law, would that fact not change your recollection of the facts?

A. No, my recollection of the fact, I don't recall that we have ever sold glucose syrup as such.

Q. No, I don't mean that, but my point is that you didn't sell them as "corn syrup" but sold them under these other names?

A. My impression is we have always sold them under "corn syrup."

Q. That you always have?

A. Yes sir.

504 Q. What, since 1880?

A. As long back as I can recollect. I wouldn't swear positively back that far, because my recollection don't go that far without refreshing it.

Q. Were you putting on the label "corn syrup" as well as "Honey Drips"?

A. No sir, we didn't put any labels on.

Q. Well, did you do that at any time, combine the two?

A. I didn't put any labels on.

Q. Did you sell goods labeled "Honey Drips" and "Corn Syrup"?

A. No sir.

Q. Did you sell goods labeled both "Pride Syrup" and "Corn Syrup"?

A. We never sold any Pride Syrup that I know of.

Q. Pride Sorghum?

A. We are selling today now Pride Sorghum.

Q. Well, you don't label it Corn Syrup also?

A. No sir. It is sorghum mixture.

Q. When you say that you have always sold this article that we are talking about here, corn syrup, you don't mean, do you, Mr. Dexter, that you have sold it under the name of "corn syrup" always?

A. So far as the can syrup is concerned, I think we have always sold it that way.

Q. Well, is that the last five or six years?

A. Yes sir.

Q. You don't mean to go back of that then?

A. Not in can syrup.

Q. Did you ever use the label Corn Syrup prior to the selling of this product in cans?

A. My impression is, without being positive, I would have to refresh my memory on that subject, that the barrels we sold it
505 in before were branded "Corn Syrup". That is my impression.

Q. You have no record of it, have you?

A. No sir, I don't know whether I could produce it or not.

Q. Was that brand particularly gotten up for you?

A. No sir, I think originally it was gotten up by the factory.

Q. Then you bought prior to five or six years ago mainly your product in barrels?

A. Parmelee Company, Detroit.

Q. That was a glucose manufacturer, wasn't it?

A. So-called I suppose.

Q. That was his name, so advertised?

A. I don't know. I didn't buy the syrup at that time.

Q. Now do you mean to say that that glucose establishment sent out any of the mixture at that time in barrels?

A. Yes sir.

Q. Marked "Corn Syrup"?

A. I think so. That is my recollection.

Q. You don't know?

A. I wouldn't be positive, but that is my impression.

Q. You haven't looked up anything recently to refresh your recollection to see whether you are wrong about this?

A. No sir, I am speaking from memory entirely.

Q. How did you come to handle these labels in 1905 without the term Corn Syrup on them?

A. I don't know as we had them.

Q. Doesn't your letter indicate that?

A. I explained that we knew that it contained glucose, not necessarily labeled glucose, we knew that the syrup contained glucose, that is the reason I wrote this letter, not because it was labeled glucose, but because we knew it was glucose.

Q. If it contained glucose and your label was labeled corn
506 syrup, you didn't have to make any change under that law of 1905?

A. Except what I asked for, the change that I asked for in this letter.

Q. That would be simply the percentage, would it not?

A. I presume that was all.

Q. And that is all you asked for?

A. I presume that is all; the size of letters and figures.

Q. You didn't ask to sell it under the name of corn syrup?

A. No sir. I simply asked for the size of the letters and figures, as the letter states.

Q. You referred to this in your letter as "glucose syrup, which is composed of glucose and cane syrup"?

A. Yes sir.

Q. Showing you knew just what it was made from?

A. I supposed that, yes sir, but I don't think it was labeled that way.

Q. Can you give any reason why you didn't speak of this, instead of calling it "glucose syrup" why didn't you speak of it as "corn syrup"?

A. No sir.

Q. "Composed of glucose and cane syrup"?

A. No sir, it was commonly supposed to be a mixture of glucose and cane syrup and always spoken of as such.

Q. Yes, but according to your recollection, as I understand it, you were selling it not under the name of "glucose syrup" but under the name of "corn syrup".

A. I didn't ask to have the label changed.

Q. No, but you were describing the article here?

A. Yes, because it was commonly understood that glucose was with the syrup; no matter what it was labeled, it was understood to be that.

507 Q. Who understood it?

A. We did.

Q. You didn't mean that the man that ate it understood it?

A. I couldn't say as to that of course.

Redirect examination:

Q. Do you know of any white syrups that are composed of a mixture of glucose and syrup, besides the rock candy syrup I mean?

A. Not at present, no sir, I don't recall any.

Dr. A. G. MANNES, being first duly sworn, testified in behalf of the defendants as follows

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Dr. Mannes?

A. Oconomowoc.

Q. What is your business?

A. Chemist.

Q. And how long have you been a chemist?

A. In practical work since 1888. I started my studies in 1879.

Q. What positions have you occupied in a professional way?

A. I was the chemist for the agricultural experiment station at Champaign, instructor in chemistry there for a while; teacher of chemistry in Chicago College of Pharmacy; fourteen years chief chemist of Armour & Company, and for the last two years chemist for Albert Trostel & Sons, Milwaukee.

Q. Have you within the last few years secured letters patent for the process of preparing fiber from corn stalks?

A. Yes sir.

Q. And the production of a food product from them?

A. Yes sir.

Q. What were the numbers of those patents?

508 A. I can't recall the numbers. I can look it up if you wish. No. 820,806, food extract from corn stalks. No. 839,305, animal food.

Q. Prepared from corn stalks.

A. Well, that is for the mixture from the extract prepared from corn stalks with various materials, such as ground leaves of the corn stalk, ground hay, or any absorbent mixture for taking up the extract prepared from the stalks. No. 811,419, process of preparing fiber from corn stalks and analogous pithy plants.

Q. Have you seen recently in the Tribune and Daily News of Chicago a statement relative to a process of preparing paper from corn stalks?

A. Yes sir.

Q. And with reference to certain experiments that have been carried on in the office of the secretary of agriculture at Washington in connection with that matter?

A. Yes sir.

Q. Do those items relate to these patents of yours and experiments carried on under them?

A. I think they do.

Q. Are there any other patents like yours covering the same processes or claims as yours?

A. Not to my knowledge, no sir.

Q. Do you make an extract from the corn stalk in your process?

A. Yes sir.

Q. Do you take all the juices out?

A. Well, we take all out that is soluble in water. That includes everything that hot water would remove.

Q. Is that extract an edible syrup?

A. No sir.

Q. What is its nature?

509 A. As prepared for use it's a dry powder, it contains the gummy matters, bitter principles, with salts, phosphates, chlorides and sulphates and the saccharine matters.

Q. Did you analyze that what I would call a syrup extract?

A. Yes, I analyzed the extract.

Q. How much sucrose is there in it?

A. The analysis varies with the proportionate amount of leaf left on the stalk during the process of extracting, so you can't give a definite analysis for the product at all times. A good, average analysis of the dried product, I could give you that, as I have it embodied here in the letters patent of this product. It contains ten per cent of moisture, 7.2 per cent of insoluble matters, the ash was 14.3 per cent, protein 9.8 per cent, sucrose 9.2 per cent, glucose 45.8, non-sugars 3.7.

Q. What is the color of the extract?

A. Brownish black.

Q. Its taste?

A. It's distinctly bitter, it's a sweet-bitter taste.

Q. What causes that bitter taste?

A. The bitter principles that are left in the stalk. The extract is necessarily made from the stalk after it has ripened and the percentage of saccharine matter is relatively small; there is enough extractive bitter principle there to produce this bitter taste in the product.

Q. Why made after the grain is ripened?

A. Because the object of this experiment was primarily for the purpose of procuring fiber for making paper. A large yield for making paper is obtained from the matured stalks, matured and cured.

Q. Could you make this paper from the stalks before the grain had ripened?

A. You could make some paper, but the yield of pulp would be too small.

510 Q. Do you wait until the grain has completely ripened?

A. Why, it is necessary to use a waste product from the farmers to get a cheap paper material. We couldn't afford to take the stalk before that period if we wanted to. Then the second reason is that before the grain is ripened the cells are too soft to withstand the hydrostatic treatment that is necessary in preparing paper pulp; so we have to wait until the cells have matured and cured before such treatment can be given, if we expect to get any large yield of pulp.

Q. Does this liquid have any names?

A. It is patented under the name of "Food Extract from Corn Stalks."

Q. Well, is this fit for food for man or only for animals?

A. The intention was to use it for a fodder for animals.

Cross-examination by Mr. OLIN:

Q. What are you doing now, Mr. Mannes?

A. I am chemist for Albert Trostel & Sons, tanners.

Q. That's a Milwaukee concern, isn't it?

A. Yes sir.

Q. Your business there is not dealing with food products?

A. No sir.

Q. These patents that you refer to, three of them, were taken out when? Can you tell us the first one, 820,806?

A. May 15, 1906.

Q. The next one, 839,305?

A. December 25, 1906.

Q. And the next one, 811,419?

A. January 30, 1906.

Q. All in 1906?

A. Yes sir.

Q. Now in your experiments did you aim in any way to make a food for man?

A. No sir.

511 Q. Simply for animal food?

A. Yes sir.

Q. Will you tell us how the extract is taken out?

A. Yes sir. The stalks are chopped up and put into a pressure tank. The pressure tank is a closed tank in which you can heat the water to a temperature where steam is generated and you can regulate the pressure as well. We generally use a pressure of about ten pounds on this tank. That is the hydrostatic extraction that I spoke about. The idea primarily is to loosen the matters soluble in water so as to make the subsequent treatment with chemicals less costly. If you leave this extractive matter in there it has to be destroyed by chemicals. We have taken a step towards the accomplishment of making paper pulp. This water is removed from the kettles and evaporated in vacuum cans, which are heated by the exhaust steam of whatever power appliances you have about the mill. evaporated to a semi-solid consistency, then mixed with the powdered absorbent material, whatever you wish to select, and the whole dried in dryers and kilns, then ground and bagged.

Q. These experiments have been carried on where?

A. In Chicago.

Q. Some special plant?

A. Yes sir.

Q. On how large a scale?

A. Which experiments do you refer to, in Washington?

Q. No, here.

A. The boiler contained about a hundred gallons probably.

Q. Well, I don't care about going into that. Have you put any of the product on the market?

A. Not to sell, no sir.

Q. Now, when you speak of glucose in the elements here of this product, you don't mean commercial glucose, do you?

512 A. I mean, in reducing sugars.

Q. Another name is invert sugars?

A. Yes sir.

Q. And this invert sugar, isn't it, from sucrose in the process of manufacture?

A. Yes sir.

Q. So that the total sugar in the extract in the moist material is about fifty-five per cent according to your figures, isn't it?

A. That's in the dried extract. You say in the moist material, I don't know what you mean by moist material.

Q. Well, in your preparation?

A. In the final preparation the total saccharine matter is the sum of those figures I gave there.

Q. That is, fifty-five per cent, isn't it?

A. Somewhere near there.

Q. And there is about sixty per cent in the dried.

A. Well, divide that product by ninety, that will give you the answer.

Q. Well, there was ten per cent of moisture?

A. Yes, that is about right.

Q. I think it would give a little over sixty. That indicates a good deal of sucrose, doesn't it?

A. Yes sir.

Q. And your attempt as you said was to make cattle food and not a sugar?

A. Yes sir.

Q. Now, you haven't made any experiments on sweet corn?

A. No.

Q. These experiments at Washington, have you had anything to do with them?

513 A. The patents were assigned to a company after they had been taken out. Do you wish for the name of the company?

Q. No, I don't care about that.

A. My partner went to Washington to superintend these experiments, which were carried out, as I understand it, with the idea of the conservation of the forests.

Q. Did the experiments which you had carried on there through yourself or partner contemplate the erection of some plant in Maine?

A. Not the erection of a plant. The Warren Mills in Maine, large paper mills, are going to demonstrate the process this coming season.

Q. Just to identify the thing, is that the process or are those the experiments that were referred to here say a week or ten days ago in the Daily Tribune of Chicago, do you remember?

A. Well, I imagine they were, because I know of no other process of that kind that is being demonstrated at Washington.

Q. Well, did you read it?

A. If you will give me the gist of it, I can tell you.

Q. Well, this I remember particularly, that it was for the purpose of manufacturing a pulp that would make paper from corn stalks.

A. Yes sir.

Q. And in connection with it the demonstration showed that they would get out of a ton of the corn stalks something like three dollars or more of value of either sugar or sugar syrup, I have forgotten whether it is in the form of sugar syrup or sugar.

A. Yes sir, that is this process. The idea is that this extract will have enough value to give the pulp at no cost to manufacturers.

Q. Well, you don't mean then to say here that when the processes are perfected that you will not get a commercial product, sugar or syrup out of it?

A. I mean to say this, that this treatment extracts the
514 gummy matter and the bitter principles and the treatment is made at a time when the proportion of sucrose and saccharine matter is relatively small in the plant; that is, it is after the corn harvest and after the curing, and consequently the amount of bitter principles is relatively large, and that is why this product has this bitter taste. Now whether that bitter product can be removed, we have never experimented on anything of that sort.

Q. No, you haven't tried to do that as yet?

A. No sir.

Q. You don't mean to say that that is improbable at all?

A. It is improbable, if I were to be asked whether I thought it could be done, whether it would be profitable to do it commercially, I would say no, because it is water soluble and I would not know how to precipitate it and not harm the food extract.

Q. That is your opinion?

A. That is just my opinion. We have done nothing in demonstrating that.

Q. You don't know how they came to publish in the paper that they would get out of this a commercial product, sugar or syrup—for human food, I mean?

A. I can tell you what my partner said as to how these articles got in the paper. They were not for publication. It was a leak through an assistant in the bureau where they were making experiments. That was not to come out until the report has been made to the committee of congress who were having this matter looked into.

Q. You haven't investigated particularly, have you, as to what has been done along the line of securing a palatable sugar or syrup from the green corn?

A. We have never made any experiments of that kind, because we were after pulp.

Q. And you don't know what has been done along that line?

A. No sir.

515 THOMAS E. LANNON, being first duly sworn, testified in behalf of the defendants as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside Mr. Lannon?

A. Chicago, Illinois.

Q. Your business?

A. Attorney at law.

Q. Did you go to the office of the Western Trunk Line Association in Chicago for the purpose of ascertaining the rates on the article glucose or corn syrup, the freight rates I mean in the west?

A. Yes sir.

Q. When?

Mr. OLIN: What is the purpose of this?

Mr. FAIRCHILD: I want to show that the freight rates—there is a freight rate on glucose and on corn syrup, and in certain parts of the country separate freight rates, and that it has been so for a great many years.

Mr. OLIN: I don't think that is material.

A. I first went there about three weeks ago and investigated the subject—

Mr. OLIN: We object to this witness testifying on a subject of that kind.

Mr. FAIRCHILD: I just simply asked if he went there for that purpose.

Q. Did you make an effort to procure the attendance of witnesses from that office here with their books to show those rates?

A. Yes sir, I made several attempts.

Q. Unable to do it?

A. Yes sir.

Q. Did you personally examine the rate books yourself for the purpose of getting the rates or the items upon which rates were fixed, from those rate books?

516 A. Yes sir.

Q. Did you take the items upon which the rates were fixed?

A. Well, I had the rates copied by a clerk in the office and I compared them, his copy with the rate books that were given to me by the agent of the Western Trunk Lines Association, as containing the rates from—

Mr. OLIN: I object to your stating what information you got and as to the rates, as wholly incompetent and immaterial, certainly incompetent and immaterial, and hearsay.

Court: I will permit this to be given subject to the objection, with the statement that I do not think the court has the right to consider it.

Exception by defendant.

Q. State whether you copied what you have there in your hand

directly from these freight rate books that are kept in the office for the purpose of inspection by shippers to ascertain rates for the commodities that they purpose to ship?

A. As I said before, the clerk in the office made this copy and I went over there and compared it with the books from which the copy was made. I didn't copy this literally, copy it myself.

Q. That is a compared copy?

A. That is a compared copy; that is the tariffs in here are compared copies, yes.

Q. Now, I will ask you if that is a correct copy of the rate books with reference to this particular article or articles?

A. Yes sir.

Q. Dating back to what time?

A. Dating back to May 23, 1900; effective May 30, 1900.

Q. Now what did you copy from the rate book for that year 1903?

A. In the book which was given to me by the agent as Amendment No. 7 Tariff No. 127, Item No. 112, Issued May 23, 1900, Effective May 30, 1900, the following item appears: "Glucose—

517 Mr. OLIN: I understand this is all under my objection?

Court: All subject to your objection.

A. "Glucose, corn syrup, grape-sugar and jelly, straight or mixed car loads, minimum weight 30,000 pounds."

Q. That had a rate of its own?

A. That had a rate of its own.

Q. What other years did you have?

A. In Tariff No. 153, issued March 30, 1901—

Court: Wouldn't we save time if that copy were marked and introduced?

Mr. FAIRCHILD: Yes, I think we can, your honor. I offer that in evidence in connection with the examination of the witness. This begins 1900 and contains each year down to 1907 inclusive, and the language of the item is the same each year.

(Marked Exhibit 165, received in evidence, attached hereto and made a part hereof.)

Cross-examination by Mr. OLIN:

Q. Mr. Lannon, you reside in Chicago?

A. Yes sir.

Q. Your business you say is that of a lawyer?

A. Yes sir.

Q. Are you the attorney for the Corn Products Company in this proceeding, or one of the attorneys?

A. Well, I am retained by Dr. Wagner here. I don't know in particular who I represent.

Q. Well, he represents that company you know, don't you?

A. I don't know that, no sir.

Q. Well, do you mean you have any doubt about that?

A. Well, I don't know that I care to express my doubts, unless you want me to.

Q. I want you to state the truth about it.

518 A. I don't know who I am employed by. I am employed by Dr. Wagner here.

Q. And you don't know that he represents in employing you the Corn Products Company?

A. I presume he does. I don't know that.

Q. You haven't any doubt about that?

A. No, I don't think I have any doubt about that. I don't know.

Q. Have you been employed in various litigations by that company where it has been had?

A. Not in various litigation, no. I have been employed by Dr. Wagner for consulting purposes for the last year or two.

Q. You are a sort of a specialist as an attorney in these food cases, arising out of the enforcement of the pure food law?

A. Yes, I make a special study of that line of law.

Q. Always on the side of the defendant?

A. Well, of recent years, yes.

Q. Well, I don't say that there is anything wrong about it, but that is the fact, isn't it?

A. It is not the fact, because I was with the food departments for upwards of probably two years.

Q. Where?

A. The state of Illinois and the state of Kentucky.

Q. How long ago?

A. In 1902 and 1903.

Q. Since that you have been devoting yourself along this special line?

A. Yes sir.

Q. In representing the defendants in these cases?

A. Yes sir. Representing manufacturers generally, food manufacturers.

Q. You have produced a paper here that has been marked as Exhibit 165. Is there any rate shown on that paper as to what
519 the freight rate is on these different articles?

A. No sir.

Q. Nowhere on it?

A. No sir.

E. M. CAMPBELL, being first duly sworn, testified in behalf of the defendant- as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside Mr. Campbell?

A. Chicago.

Q. What is your business?

A. That of rate clerk, traffic man for the Corn Products Refining Company.

Q. In that capacity how long have you been?

A. About two years.

Q. Beginning when?

A. I think the exact date was January 21, 1907.

Q. What, in a general way, are your duties?

A. Devising rates, tariffs, etc. working in connection with the sales department in so far as rates are concerned on the various products.

Q. Do you know whether since you have been with the company there has been a rating of glucose and corn syrup by the Western Trunk Lines centering in Chicago?

A. I do.

Q. Is the rate a separate rate for glucose and corn syrup, or is it the same rate?

Mr. OLIN: I make the same objection.

Court: He may answer.

A. It happens to be as published by the Western Trunk Lines the same rate, you might say, and carried in the same items.
520 That is, what we mean by items, there are several articles carried in that item and they happen to be the same rate.

Q. Is that single rate confined to any particular part of the country?

A. The Western Trunk Lines, as published by the Western Trunk Lines committee.

Q. Is there a different rate on these same articles in the East?

A. No sir, not in what we call the Western Trunk Lines, but in the Western Trunk Line territory there is a difference.

Q. There is a difference?

A. A different rate.

Q. What part of the territory does that affect?

A. That covers territory east of Pittsburg and Buffalo to the seaboard.

Q. What is the difference in the rate? What is the rate?

A. What is the rate?

Q. Yes, in the East?

A. Do you want specific figures?

Q. Yes.

A. Well, we use Chicago and New York on the basis of twenty-five cents a hundred—

Court: Is it material to go into the details of the rates?

Mr. FAIRCHILD: Not except to point out the difference, that is all.

A. That basis I speak of, Chicago and New York, that is the basis of all those rates, that is twenty-five cents on glucose, and on the refined syrup thirty cents.

Q. Refined syrup?

A. Or corn syrup n. o. s.

Mr. OLIN: What is that n. o. s.

A. Not otherwise specified.

521 Cross-examination by Mr. OLIN:

Q. If I understand it, Mr. Campbell, all it amounts to is this, that in one territory here around Chicago it is the same on glucose and this mixture?

A. Well it extends further than that.

Q. That is one section. You mean the territory extends further than that?

A. Yes sir, what we call Western Trunk Line territory.

Q. What would be the Western Trunk Lines?

A. Embracing all the territory, you might say, east of the Mississippi river to the Illinois-Indiana state line, taking in this territory up towards St. Paul.

Q. This middle west?

A. Yes sir, the middle west, Iowa.

Q. Do I understand that you have the same rate on the unmixed and mixed article?

A. Yes.

Q. Now, when you get to the east they charge you a little more for a more valuable article?

A. I wouldn't say it is a more valuable article—from a transportation standpoint I wouldn't.

Q. Well, in the one case you have simply the glucose by the barrel we will say, in the other case you have these mixed syrups?

A. We know them as corn syrups.

Q. For how long have you known them as corn syrups?

A. Well, we have right along, from a transportation standpoint.

Q. Since you have been with the Corn Products Company?

A. And before. I was in the railroad business before that.

Q. Prior to that you handled these Fancy Drips and Pride Sorghums, Louisiana Molasses, and all those things, didn't you?

A. No sir, we didn't. A railroad man don't know those at all.

522 Q. The railroad officials are men, I suppose, who ship the goods as they are marked?

A. Well, as they are billed out, in other words. In billing them the fancy names don't appeal to them, they are not used at all, especially in making up the rates.

Q. Now, there was the same difference in former years prior to your working here for this company, between the mixed and unmixed articles?

A. Yes.

Q. That is nothing new?

A. Nothing new.

Redirect examination:

Q. You say you were in the railroad business before that?

A. Yes sir, I was educated along those lines.

Q. Where?

A. The last railroad company I was with was the E. J. & E. Elgin, Joliet & Eastern belt line.

Q. Were you familiar with the fact that this product under separate names, corn syrup, and glucose, had appeared in the rates of these western railroad lines, before that?

Objected to as leading.

Objection sustained.

Exception by defendant.

Q. Will you state whether this product under the name of glucose and as corn syrup appeared in the rates of railroads before you went to the Corn Products Company, in the same items?

Objected to as leading and suggestive.

Objection sustained.

Exception by defendant.

523 Q. Do you know whether this product corn syrup and glucose appeared in the same item of the freight rates of the railroads running out of Chicago prior to the time you went with the Corn Products Company?

Objected to as leading and suggestive.

Court: You may answer by yes or no.

A. I do know, yes sir.

Q. State whether they did or did not appear in the same item, the corn syrup and glucose?

A. You mean prior to my time with the Corn Products Company?

Q. Yes.

A. Yes sir, I know that they did.

Q. For how many years do you know that was true prior to 1907?

A. Well, I have got records in my possession now that show back to 1901, but as to my memory, that is about my beginning of it anyhow, my experience.

Recross-examination:

Q. Have you got the records here?

A. Yes sir.

Q. In your pocket?

A. I got them on the table there. I don't want to submit them here because I have to return them to the file.

(Recess until the following morning, January 1, 1909, at which time the trial was resumed.)

524 J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. I show you a letter marked for identification Exhibit 166 and purporting to have been written by the Warner Sugar Refining Company to you as commissioner, under date of October 4, 1905, with a label or sample of a label marked for identification Exhibit 167, and I wish you would state how those came into your possession.

A. The letter was received through the mail from the Warner Sugar Refining Company.

Q. What was attached to it, if anything, or accompanied it, if you know?

A. There was attached to it a proposed label for the use of the Roundy, Peckham & Dexter Company for relabeling some of their products said to be on hand.

Q. Well, was Exhibit 167 attached?

A. Yes sir, it was enclosed in the letter.

Q. And in the form that you now see it?

A. Yes sir.

Q. Did you approve of that?

A. No sir.

Mr. OLIN: We will offer the letter and the label in evidence.

Objected to as incompetent, irrelevant and immaterial.

Objection overruled.

Exception by defendant.

Mr. OLIN: The letter is as follows:

“WAUKEGAN, ILL., October 4, 1905.

Mr. J. Q. Emery, Commissioner, Dairy & Food Commissioner, Madison, Wis.

525 DEAR SIR: One of our customers in Milwaukee has several carloads of syrup on hand which he desires to re-label to comply with the new laws of your state, as per label enclosed. Before printing these labels for him you will kindly advise if same will meet the requirements.

Your early attention will greatly oblige.

Very truly yours,

WARNER SUGAR REFINING
COMPANY,

A. H. KERSTING,

Sales Department.”

Q. The label accompanying it has on it, hasn't it, “Roundy, Peckham & Dexter Co.”?

A. Yes sir.

Q. Now there is printed over to the left hand side the figures “85” above, then below “corn syrup” then below “15” and below that “cane syrup”. Was that printed after the label was originally prepared?

A. Yes sir.

Q. And what do you say as to the word “corn” to the right of the “Fancy Table Syrup”?

A. That was printed after the original label was prepared.

Q. Did they see you personally?

A. No sir, it was all by correspondence.

Q. You have with you, have you, the copy of your answer?

A. Yes sir.

Q. So if counsel desire to see it, they may do so.

(No cross examination.)

526 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. There was one statement in Allen's book you referred to yesterday, doctor, that I would like to have you call attention to on the same page, that is, in the large print; you read something as a sort of a foot note in small type.

A. Yes sir. On page 359 of this volume 1 of Allen's Commercial Organic Analysis appears this statement, under the head of "Commercial Glucose and Starch Sugar". "Starch glucose occurs in commerce in several forms, varying from the condition of pure anhydrous dextrose, through inferior kinds of solid sugar, to the condition of a thick, syrupy liquid resembling glycerin, which contains a large proportion of dextrin".

Q. Is there then at the end of that a star with a reference?

A. Foot note number 2.

Q. Then that foot note number 2 you read?

A. Yes sir.

Q. Now, have you also, since you were on the stand, consulted the article that your attention was called to as written by Dr. Wiley found in volume 11 of the Universal Encyclopedia, concerning sugar made from corn stalks?

A. Yes sir.

Q. You have it here, have you?

A. I have.

Q. Now, there were certain parts of that read to you yesterday, did they pertain to the manufacture of syrup from corn stalks or sugar?

A. Only to the manufacture of—well, the manufacture of syrup is often discussed.

Q. I say, the part read to you?

527 A. As I remember it, it applied only to sugar. At any rate the statement is made by Wiley that the commercial preparation of sugars from maize stalks is a hopeless task so long as better and cheaper sources of raw material exist in practically inexhaustible supplies, and the statement is made that the difficulty in getting sugar from maize stalks, maize sap, is that the syrups resulting from concentrating the juices crystallize with great difficulty. That would make, nevertheless, a good syrup.

Q. But would be a difficulty in the way of making sugar?

A. Yes sir. It seems from analyses that a large percentage of the cane sugar existing in the juice is inverted during the operation of concentration.

Dr. T. B. WAGNER, being recalled, by the prosecution, testified as follows:

(Examined by Mr. OLIN:)

Q. You remember of your company, do you not, Dr. Wagner, asking for a hearing before the board of food and drug inspection to

restore the standards and definition that had been omitted from Circular No. 19?

A. I don't think that is quite correct.

Q. Please read the question (Question read).

A. As to corn syrup.

A. I personally submitted the letter to the board of food and drug inspection, stating therein that there seemed to be——

Q. Have you got the letter?

A. I think I have a copy of it, yes.

Q. I will take the letter if you will just produce it.

(Letter produced by witness.)

A. "The Board of Food and Drug Inspection, Department 528 of Agriculture, Washington, D. C. Gentlemen: The following brief is respectfully submitted for the purpose of clearing away the doubts which we understand are being entertained by your honorable board in regard to the propriety of employing the name 'Corn Syrup' as a synonym for glucose, and the name 'Corn Sugar' as a synonym for 'Starch Sugar'."

Q. You remember the date of that?

A. July 8, 1907. And I wish to say in explanation what prompted this letter was a number of talks which I personally had with members of the board of food and drug inspection.

Q. Well, I don't care to go into that. I want to get the record evidence here as far as we are concerned. There was a hearing granted in pursuance of this request?

A. Yes sir.

Q. And a decision was reached in the matter by that board and a copy was sent to your company?

A. Not exactly. We received a letter in which it was stated that it was the unanimous opinion of the board. It was not in the form of a decision.

Q. That letter is dated November 8, 1907, isn't it?

A. Thereabouts.

Q. I presume you have a copy of it here or the original. If you will just look at this and read it and see if that isn't a copy of it according to your best recollection?

A. Yews sir, that is a copy.

Mr. OLIN: We offer that in evidence.

"NOVEMBER 8, 1907.

Corn Products Company, 42 East Madison St., Chicago, Ill.

529 GENTLEMEN: Referring to the briefs and arguments which you have submitted to this board in re. the use of the term "corn syrup" and to the hearings which you have had before the board, I beg to make the following statement:

The board of food and drug inspection carefully considered the briefs and arguments which you have submitted and the points brought out at the oral hearing. We have come to the unanimous conclusion that the term "corn syrup" is not a proper designation to

be used with a mixture of glucose and sugar cane products. We are further of the opinion that the term "corn syrup" is not a satisfactory synonym for glucose.

Respectfully,

W. H. WILEY, *Chairman.*"

Q. Now, you have seen the decision that that letter refers to, haven't you, doctor, before this?

A. I have never seen any decision but this letter.

Q. Just read what you find there on page 8.

A. "Corn Syrup as a Synonym for Glucose. Many exhibits and briefs have been submitted to the board respecting the term "corn syrup" for "glucose". Hearings have also been had by the board on the same subject".

Q. This decision is the decision they reached, as I understand it—I didn't mean to have you read that out loud—is that the fact?

A. Let me say in explanation of this decision, as you call it, it was never published; therefore, I never had any knowledge of this document.

Q. I am going to call your attention to that. Just look it through, doctor, first.

A. Well, the middle paragraph is a quotation from my own statement which I have read this morning, and the closing paragraph is practically the letter which we have just quoted as coming from Dr. Wiley, as coming from the board of food and drug inspection.

530 Q. You understood they had reached a decision from that letter?

A. The unanimous opinion that corn syrup was not a proper name for glucose. I could hardly consider it a decision, because it was never put in the form of a decision.

Mr. FAIRCHILD: They use the word "satisfactory".

A. Satisfactory—to them.

Q. Now, was not that the decision of the board of food and drug inspection which was to be printed as decision number 83 and announced on November 12, 1907?

A. I don't know anything about that.

Q. Why, didn't your company learn of that?

A. Why, we received this letter and immediately upon receipt of this letter I personally went to Washington and I told Secretary Wilson that to my own knowledge the brief which I had submitted had not been read by the members of the board of food and drug inspection nor had the exhibits which I submitted been ever opened.

Q. That is what you told the secretary?

A. Yes sir.

Q. I didn't ask you that?

A. But I am coming to the point, if you will permit me.

Q. I was trying to get at the record evidence.

A. I was trying to come to that. I asked the secretary whether we could not get an opportunity of presenting our evidence to the full board and possibly to the secretary himself.

Q. Well, I am going into that part of it. You say you didn't get that form of decision?

A. Nothing beyond the letter which I have quoted this morning.

Q. But you learned, didn't you that the decision had been made and approved of by the secretary and has been set up in galley-proof?

A. I learned that from the brief of Dr. Wiley from which we are quoting.

531 Mr. FAIRCHILD: I ask that that statement be stricken out. That is mere hearsay.

COURT: What statement?

Mr. FAIRCHILD: The statement just now in response to the question that was asked him.

COURT: It all may be stricken out.

Q. You also learned that, didn't you, from your talk with the secretary of agriculture?

A. I asked the secretary whether a decision——

Q. My question is simply whether you learned from the secretary of agriculture that a decision had been reached and approved of by him and ordered printed?

A. I don't know as that was stated, no.

Q. Well, didn't you learn that fact from the secretary of agriculture when you met him?

A. In fact, I understood him to say that the matter hadn't gotten to that point yet, because if it had been a decision and approved of by him the matter couldn't have been taken up again.

Q. Why, it wasn't too late to have him reconsider it, was it?

A. Why, if he had approved of it I should think——

Q. Wasn't that just the point of your personal visit to him, to get him to allow you to have the matter opened up and presented?

A. Yes sir.

Q. And didn't you learn from him at that time that the decision of the board of food and drug inspection had been approved of by him and ordered printed as one of the decisions, but had not yet been published?

A. I wouldn't put it that way, no sir.

Q. You think that you didn't learn that fact there, in substance?

A. I may have learned it in Washington, yes, but——

532 Q. Well, you did learn that, didn't you, and that was the occasion of your moving in the matter?

A. I beg your pardon, no sir—I emphatically say no.

Q. Why, you learned from the secretary——

A. That an opinion had been rendered and because it was not in the form of a decision I went to see Secretary Wilson to see whether he was in accord with that opinion.

Q. Why, you understood from this letter that it was a decision of that board.

A. It says "unanimous opinion that this is not a satisfactory term. Every decision of the board of food and drug inspection has a number attached to it. This one did not have any number. We weren't given the number 83 or 86 or any other number.

Q. They said, not "opinion" merely, but they said "we have come to the unanimous conclusion".

S. "Conclusion"—that's it exactly.

Q. And before the conclusion was published you had this personal interview with the secretary of agriculture?

A. Exactly, yes sir.

Q. Now, do you wish to state, doctor, that you did not learn at that interview that it had been set up in type?

A. Yes, I would say that I did not learn that it has been set up in type.

Q. You would say that you didn't know it?

A. I wouldn't say either, because I don't know.

Q. And didn't you at that time ask the secretary to stay further proceedings in the matter and give your company an opportunity to have the matter opened up, in substance?

A. I stated, if it was possible that we be given a hearing. I would ask him to kindly give us a hearing, and he gave us exactly three weeks.

533 Q. That is, a hearing was fixed for December 5, 1907?

A. Yes sir.

Cross-examination by Mr. FAIRCHILD:

Q. Were the same gentlemen who constituted the board when this opinion or conclusion was reached that has just been referred to members of the board at the time Decision 87 that has been introduced in evidence declaring "Corn Syrup flavored with cane" a proper designation of this article, the same members of the board when the other conclusion was reached?

A. They were.

Q. Do you know whether a majority of the board approved of the decision of the three secretaries?

A. The majority?

Q. Yes.

A. Yes, sir.

Mr. OLIN: I move that that be struck out. If there is anything of that kind it is on record. Your question may mean two things, the three secretaries is one thing and the board of food and drug inspection is another.

Court: What did you mean by your answer, who approved it, a majority of the secretaries, or some other board?

A. The majority of the board of food and drug inspection.

Q. You don't mean by that the three secretaries?

A. No.

Mr. OLIN: Now, I move that that be struck out as not proper. If there was any such approval of that, it is on record.

Mr. FAIRCHILD: I wish to show that the majority of that board of food and drug inspection, at the time the three secretaries rendered their decision, were in perfect accord with that decision and

even submitted briefs urging the same. That is, they came
534 to a different conclusion entirely upon this final hearing
from what they had reached in their oral opinion that has
been referred to by Dr. Wagner.

COURT: The last answer may be stricken out. You may show the
facts if you desire.

Exception by defendant.

Q. Do you know whether when this original decision was reached
all the members of the board participated in it?

A. They did not.

Mr. OLIN: Do you know of your own knowledge?

A. I do.

Mr. OLIN: Or what somebody told you?

A. No, I was the only representative of the Corn Products Refin-
ing Company at that meeting?

Mr. OLIN: Do you know what they did after you left?

A. No, I don't know what they did after I left.

Mr. OLIN: I move that that be struck out.

COURT: It may stand.

Q. Who was absent?

A. Dr. Dunlop.

Q. How many were on that board?

A. Three.

Q. Who were they?

A. Dr. Wiley chairman, Mr. McCabe as solicitor of the depart-
ment, and Dr. Dunlop, the associate chemist.

Q. Will you state whether Mr. McCabe and Dr. Dunlop submitted
brief to the three secretaries favorable to the use of the words "Corn
syrup flavored with cane" as a proper designation of this article?

Mr. OLIN: We object to that as incompetent, as not proper cross
examination, and if they submitted any briefs, we are entitled to see
those briefs.

Objection sustained.

535 Exception by defendant.

Q. Have you those briefs?

A. I have not got them with me.

Q. Do you know personally whether Mr. McCabe and Dr. Dunlop
at the time of the hearing before the secretaries were present and
participated in any way in that hearing?

A. They both participated in that hearing.

Q. Did you hear them make an argument or arguments on the
subject?

A. Yes sir.

Q. What were their arguments, for or against the use of that
name?

Objected to as mere hearsay.

Q. I will ask you, doctor, what Mr. McCabe said on the subject of
the propriety of using the words "corn syrup with cane flavor" as
applied to this commodity?

Mr. OLIN: We object to that as not only hearsay, but even as not secondary evidence, it being shown here that these parties, as I understand, filed written briefs at that hearing.

Mr. FAIRCHILD: After it was over they filed the briefs, but they made arguments also.

Court: He may answer.

Mr. OLIN: It is objected to further, that it is not cross examination of this witness. He is an interested party, and I don't think it ought to be permitted.

Court: He may answer.

A. The statements made at the hearing on December 5th were largely in the line of interrogation seeking enlightenment on the subject, because these men stated that they had not received—

Court: What men?

A. The two men covered by the question, Mr. McCabe and Dr. Dunlop, that they had not as yet received full information, such full information as would enable them to form a definite conclusion, and therefore they invited us to submit any briefs which we might have in substantiation of our contention that corn syrup was a legitimate name for our product and had been in use in this country for at least twenty-five years.

Q. Did they make any argument at that hearing or were their conclusions submitted in a brief later on entirely?

A. At that meeting of course their statements were in the line of argument, they would bring up all such points as they had been advised of against us, and asking us to contradict them; for instance the standards, the definition of a syrup was particularly gone into, and it was shown that—

Mr. OLIN: Now, I object to that.

Mr. FAIRCHILD: That is sufficient in answer to my question.

Q. I will ask you if when you went there you had been informed that the briefs that had been submitted and the proof that had been submitted had not been considered by the board, or where did you discover that—how did you discover that?

Objected to as hearsay and not cross-examination.

Q. You made the statement in your examination in chief that the proof you had submitted hadn't been considered, hadn't been opened?

A. Yes sir.

Q. How did that information come to you?

A. During discussion on the subject while I was at Washington.

Q. With whom?

A. I think Dr. Dunlop and I think in a measure Mr. McCabe.

Q. Were all the board present at this hearing before Secretary Wilson?

A. At that time they were, yes sir.

Q. I mean on December 5th?

A. December 5th.

537 Q. Did they all participate in that hearing?

A. Every one, yes sir.

Q. Did each of them file briefs afterwards?

A. Yes sir.

Q. I mean file briefs with the secretary?

A. Yes sir.

Q. Will you state when the briefs of these three members of the board of inspection were filed, after the argument and hearing on December 5th, or after that argument?

A. After the argument.

Q. Did you see those briefs later on?

A. I did.

Q. On file in the——

A. In the Department of Agriculture.

Q. Have you a copy of any kind here of the briefs of Mr. McCabe and Mr. Dunlop?

A. I haven't got them with me. What I have with me is a rather incomplete copy.

Redirect examination:

Q. Where is the complete copy?

A. I haven't got it, I don't know.

Q. Did you ever have it?

A. No sir.

Q. How did you come to get an incomplete copy?

A. Because I read the original.

Q. And copied out such parts as you thought were material?

A. As were of interest to me.

Q. Did you get a complete copy of Mr. Wiley's brief?

A. No sir.

Q. You have seen that, haven't you?

A. Yes sir.

538 Q. He was the chairman of the committee?

A. Of the board of food and drug inspection, and still is.

Q. You were not refused a copy of any of these briefs?

A. No sir.

Q. Did you get portions of the brief of Mr. Wiley?

A. Yes sir.

Q. You have those with you?

A. I have.

Q. Can you produce them?

A. Yes, I have them in my bag.

Q. To what extent do you cover the whole field that he covered in his brief?

A. By far the largest part.

Q. You have practically then his brief?

A. Oh yes in substance.

Q. How did you get that?

A. From the files of the Department of Agriculture by permission of the secretary.

Q. How long have you had it?

A. Almost a year.

Q. Will you please be so kind as to let me see the copy which you have.

(Produced by witness and handed to Mr. Olin.)

Q. I have compared, doctor, what you have presented to me with what I understand to be a true copy of Dr. Wiley's brief, and I will ask you now to state whether or not the paper I present to you which you presented to me is not you understand a full and complete copy and a true copy of everything that is found in his original brief as filed with the department on this matter, with the exception of seven pages in all which deal exclusively with the subject of—headed "Supplemental Brief on the Subject of Glucose vs.

Corn Syrup", dealing with the opinion evidence that was submitted by your company.

A. As I said before, I thought this was a rather complete copy. I believe, however, that there are not only those pages missing, but I believe that there are sections and paragraphs missing which the stenographer did not get into the copy. The copy is not a compared copy, I have no means of comparing it.

Q. I don't mean necessarily to say it is a compared copy. You didn't need any statement as to the opinions which you already had in another form I suppose?

A. What is your question?

Q. I say, I suppose you didn't feel that you needed anything Dr. Wiley said as to the opinions of these experts or list of them that he attached in his brief—you had those already?

A. Yes, but of course I don't know anything about that not getting into this copy here.

Q. That seems to be a complete copy from the examination we have made here aside from that.

A. Well, of course I would not be satisfied with such a hasty examination for court purposes, so I am not prepared to testify that this is a true copy.

Q. But you did think you had got——

A. A rather complete copy.

Q. A rather complete copy, to serve all purposes so far as his argument is concerned?

A. So far as my own personal purposes are concerned, yes.

Q. And that you obtained at what time?

A. It was within a month I believe after the decision was rendered. That would bring it within March. I may be mistaken however. It may have been in the summer.

540 Recross-examination by Mr. FAIRCHILD:

Q. Doctor, you stated that you were not refused a copy of the brief. What do you mean by that?

A. I mean that I was not refused permission on the part of the Secretary of Agriculture to look over these briefs and make notes on them if I wanted to, for my own information, but I was refused a certified copy.

Q. You made endeavors several times to get certified copies of them?

A. I did sir—not only I, but counsel in Chicago and other members of the company.

Redirect examination by Mr. OLIN:

Q. You had no more difficulty in getting copies of the briefs of McCabe and Dunlop than you did of getting copies of Mr. Wiley's brief?

A. Such copies as this?

Q. Yes.

A. Yes sir.

Q. You had no more difficulty?

A. No sir, all three briefs were given to me.

Q. Was this copy which you had, containing, as I take it, something like 178 pages of typewritten matter, prepared there at the office in Washington?

A. Whose office?

Q. At the office at Washington, office of the commissioner of agriculture or Secretary of Agriculture?

A. No sir, it was not.

Q. Or at any one of his departments?

A. No sir. It was made at the office of a public stenographer in Washington?

Q. From the original?

A. From the original.

541 Q. You were permitted to take it out from the secretary's possession to the office of a public stenographer and have a copy made?

A. I wish to say that he offered me the use of his office, but I told him, I said, "This is rather a lengthy document and I could not possibly make a copy of it inside of a half an hour," so he let me take it during the afternoon and I delivered it the next morning in person to the secretary, all three copies.

Q. What did you mean a moment ago by saying that you tried to get copies of the arguments of Dunlop and McCabe, but hadn't been able to do it?

A. If I made that statement I had reference just the same as in this case, to the certified copies.

Q. You didn't mean that you couldn't get a true copy?

A. I meant the same as I said in reference to Wiley's brief.

Q. That is, you understood it wasn't the business of the department at Washington to be certifying copies for private use of their documents?

A. For public use I would say.

Q. Well, if that is the way you consider it, anything for your company a public use?

A. If we introduced it into court, I should think it would be a public use.

Q. Is that what you were seeking to get the copy for?

A. No, not exactly, at that time, there was no controversy on anywhere in regard to corn syrup. Of course they were interesting documents, and I liked to have always certified copies if I can get them.

Q. You didn't ask, or did you, the secretary at the same time to take the briefs of Dunlop and McCabe and make copies of them?

A. I did, yes sir.

Q. And you made copies of them in the same way that you did of Mr. Wiley's?

542 A. I did.

Q. Was there any reason why you didn't make as complete a copy of their briefs as you did of this one?

A. No.

Q. Is there any reason why you shouldn't have those copies here with you?

A. I think one is in the possession of Mr. Fairchild here now at this time?

Q. Which one is that?

A. I think that is McCabe's.

Q. Have you got Dunlop's here too?

A. I think I have Dunlop's here too.

Q. So you have really the opinions or briefs of those two gentlemen in just as complete a form as you have that of Mr. Wiley's?

A. I have not.

Q. Any reason why you couldn't have it as complete?

A. Yes, because I told the secretary that I would take those copies only for the afternoon and I would return them the next morning, and I had to live up to my statement.

Q. Didn't you say a moment ago in answer to my question that they were just as complete?

A. I said I don't consider Wiley's copy a complete copy.

Q. I didn't ask you that, but I asked you if the other copies you had of the briefs of these two gentlemen were not just as complete as the copy you have of Mr. Wiley's brief, and I thought you said they were.

A. No, I don't think so, because I know to my definite knowledge that there were pages missing; that was entirely accidental.

Q. It is accidental if they are missing?

A. Well, because the stenographer didn't finish them in time. For no other reason.

543 Q. I thought you said in answer to your counsel's question,

I may be mistaken, that you had these copies of these briefs of McCabe and Dunlop, but you hadn't them here—did you not so state in your cross examination?

A. Well, I don't know as I did state that. I just said that I haven't got the one because that is in the possession of Mr. Fairchild.

Q. The fact of it is, whatever briefs you have here, or copies of these briefs, you have here, haven't you?

A. I brought them with me.

Q. So if you did answer that you haven't got them here, you made a mistake?

A. I didn't because I haven't got the one copy.

Q. Well, either of them, if your testimony is subject to that interpretation, that you didn't have either Dunlop's copy of his brief or the brief of Mr. McCabe here, you made a mistake?

A. I beg your pardon, no. I said that I did not have a complete

copy of either Mr. McCabe's or Mr. Dunlop's as filed with the secretary.

Q. Didn't you say that you didn't have it with you, but you had it?

A. I said I didn't have a complete copy with me.

Q. But that you had it somewhere else—didn't you so state?

A. No sir, I said I didn't have it with me, a complete copy.

Q. Well, the record shows. I may be mistaken.

544 J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, you have already stated you were familiar with the fact of there having been a hearing of this matter before the secretary at Washington?

A. Yes sir.

Q. Did you learn that Dr. Wiley had prepared and submitted a brief on this question at the time of the hearing before the secretaries?

A. Yes sir.

Q. How early did you learn that fact?

A. I learned it about a year ago. I can't give that exact date now.

Q. Did you learn at that time also that a copy of that brief was in the possession of the Corn Products Company?

A. Well, that information was given to me.

Q. Did you at about that time seek to obtain a copy?

A. I did.

Q. In what way?

A. I wrote the secretary of agriculture and requested a copy of Dr. Wiley's brief as presented to him in the hearing on the subject of Corn Syrup vs. Glucose.

Q. Did you get a copy?

A. I was refused a copy.

Q. Did you ask for any certified copy?

A. No sir.

Q. You say you were refused a copy?

A. Yes sir.

Q. Did you ask for this copy in your official position, or office?

A. Yes sir.

Q. Did you quite recently seek to get a copy in some other way?

A. Yes sir.

545 Q. What did you do?

A. I asked Congressman Nelson, after stating to him my experience in failing to get a copy, to telegraph the secretary of agriculture requesting a copy of that brief for the dairy and food commissioner of the state who was one of his, Congressman Nelson's constituents. That was, as I recall it, a week ago last Tuesday or Wednesday in the afternoon. I think it was Tuesday a week ago.

Q. Do you know whether Congressman Nelson telegraphed as requested?

A. Yes sir.

Q. Did you in answer to that telegram get some response?

A. Yes sir. On Saturday afternoon at my home in Albion I received a telephone message from Congressman Nelson stating substantially that he had a telegram from Secretary Wilson stating that the dairy and food commissioner of Wisconsin collaborated with the department of agriculture and on the personal request of the dairy and food commissioner a copy of Dr. Wiley's brief would be sent to the dairy and food commissioner.

Q. And did you later receive by mail what purported to be a copy?

A. I immediately telephoned a message to the Western Union and sent a telegram to Secretary Wilson requesting—my telegram stated that following the suggestion of his telegram to Congressman Nelson I requested a copy of Dr. Wiley's brief in Corn Syrup vs. Glucose.

Q. And did you later get by mail what purported to be a copy?

A. Last Wednesday morning I received a letter from Secretary Wilson accompanied with what he stated was a copy of Dr. Wiley's brief.

Q. Now, that came to you, did it not, Mr. Emery, in separate parts?

A. Yes sir.

Mr. OLIN: I will say that I have had those parts put together, Mr. Fairchild, in the order in which they came and the document which I hand him is the identical document which was turned over to me and I took it out of the envelope with the exception of 546 the first page there, an index, which I prepared. Now we offer that in evidence.

Mr. FAIRCHILD: We object to that as incompetent, irrelevant and immaterial. In the first place there is no controversy here at all that Dr. Wiley dissented from the decision of the other two food inspectors or members of the board of inspection, and this is merely an argument, merely a brief and argument filed in support of a certain proposition, and it doesn't seem to me to be competent as testimony in the case.

COURT: What is the purpose of the offer, and how is it competent?

Mr. OLIN: Why it occurred to me if this other line of proof as to the briefs of the other members of the board is competent that this is competent.

COURT: I don't think there is testimony as to the other briefs except that they were filed and that those persons asked questions during the hearing.

Mr. OLIN: I thought it went farther than that.

COURT: There were questions put and answers given which went further, but the answer was stricken out and the objections to the other questions were sustained.

Mr. OLIN: I was under the impression that Dr. Wagner stated what these gentlemen said.

COURT: He did, and all that was stated there was that they asked questions with reference to the facts that they put forth their position, which was consistent with the first order or decision, and asked them for additional facts to combat their decision.

Mr. OLIN: Then, do I understand that there is no proof in the case that these two members of the board of food and drug inspection were opposed to the opinion as expressed in the letter by the chairman to this company?

547 COURT: That is my understanding of the testimony.

Mr. OLIN: If that is the testimony, I don't think this offer is a proper one.

Objection sustained.

Mr. OLIN: I have the letter as I stated.

COURT: I don't think it is material now.

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8:30 A. M.—January 2, 1909.

Mr. FAIRCHILD: We offer Act No. 123 of the published acts of 1903 of the state of Michigan, entitled "An Act in Relation to the Sale of Corn Syrup." I haven't the published act here, but that act will be found quoted in the case of *People vs. Harris* in the 97th Northwestern Reporter, page 402.

Mr. OLIN: We do not object on the ground that it is not a proper way of proving it, but we object on the ground that it is incompetent, irrelevant and immaterial.

COURT: It may be received.

Mr. OLIN: Now, I wish to have it understood that the original Michigan report may be considered by either side in place of the Northwestern Reporter.

Mr. FAIRCHILD: That is 135 Michigan, 136.

Mr. OLIN: Then I wish to have it understood that the preceding laws of Michigan referred to in that decision may be considered in evidence.

Mr. FAIRCHILD: Whatever is referred to there in the decision itself I don't object to.

COURT: Whatever statutes are referred to in that case are to be considered before the court.

Mr. OLIN: I want to look at the decision again, I have a little doubt whether the law referred to is in there, but if not, I will look it up. There is a prior law either referred to in that decision or some other that I want to get in evidence.

It is stipulated that the Public Acts of Michigan and the reported decisions of its supreme court as published by authority of that state may be referred to for said Act No. 123 and the decision of *People vs. Harris*, as though each were set out at length herein.

C. E. REEDS, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Reeds?

A. Eau Claire, Wisconsin.

Q. What is your business?

549 A. A traveling representative of the Corn Products Refining Company.

Q. In what capacity?

A. As traveling salesman.

Q. For their products?

A. Yes sir.

Q. How long have you been engaged as a traveling salesman for any company or individual?

A. That is, since I have been on the road you mean?

Q. Yes.

A. About fifteen years.

Q. Have you in your capacity as a salesman sold the article which has been called here corn syrup?

A. Yes sir.

Q. How long have you been selling that article as corn syrup?

A. Three years.

Q. When did you first begin to sell the article?

A. January of 1906.

Q. For whom?

A. For the Eau Claire Grocery Company of Eau Claire, Wisconsin.

Q. Were you handling that syrup in any way before 1906?

A. No sir.

Q. I mean by that under any other name?

A. No sir.

Q. Did you begin to travel for this Eau Claire company January 1st, 1906?

A. Yes sir.

Q. How extensively did you travel for that concern?

A. One year.

Q. How extensively, over the state?

A. Only a short territory, as grocerymen usually have, about a two weeks' territory.

550 Q. Over what part of the state?

A. Well, it would be what I would call the northwestern part, around Eau Claire, and that is the northwestern part of the state. I traveled east and south of Eau Claire.

Q. How far from Eau Claire, how much of a territory say measuring from Eau Claire?

A. Well, possibly east and south on the Wisconsin Central line about seventy-five miles and south on the North Western line about fifty miles.

Q. Did you find when you went into that territory to travel an established trade for this article, corn syrup?

A. Yes sir.

Objected to as leading and suggestive.

COURT: The answer may be stricken out.

Exception by defendant.

Q. State whether you found in that territory a trade existing, when you went onto the road, for this article corn syrup?

A. Yes sir.

Q. Did that extend over all the territory that you have referred to?

A. Yes sir.

Q. State whether during the time that you traveled this trade continued?

A. It did.

Q. Were you selling under any brands?

A. Yes sir.

Q. Speaking now about the Eau Claire company?

A. Yes sir.

Q. What brand did you sell?

A. Clover brand and the Karo brand.

Q. I will ask you whether the Karo brand had on it the words "with cane flavor" when you first began to travel in 1906?

551 A. That I would not be positive of.

Q. State whether if did later on?

A. In 1906?

Q. Yes.

A. I couldn't say positively.

Q. State whether this Exhibit number 154 is the Clover brand that you refer to, omitting the bottom there, "For Joannes Brothers Co., Green Bay."

A. It is.

(Exhibit 154 hereto attached and made a part hereof.)

Q. Was there anything in the place of the name Joannes Brothers when you were traveling for it?

A. Yes sir.

Q. What?

A. Eau Claire Grocery Company.

Q. Look at Exhibit 155, known as the Karo brand, and state whether that's the brand that you were using at that time?

A. That is the brand, but the label was a little different.

(Exhibit 155 hereto attached and made a part hereof.)

Q. Here is a label, Exhibit 143.

A. That is the one.

Q. 143 is the one?

A. Yes.

Q. Do you remember whether during that first year of 1906 the label was changed in any way?

A. Not to my recollection.

Q. State whether you continued the sale of both of these brands during 1906?

A. Yes sir.

Q. Did you sell under any other brand?

A. No sir.

Q. You began the next year, January, as I understand you to say, for the Corn Products Company?

A. Yes sir.

552 Q. Under what brands did you sell for them?

A. For the Corn Products Company?

Q. For the Corn Products Company?

A. Are you speaking now of the retail or the wholesale trade, or both?

A. To both. I will ask you there then, did you sell to any trade for the Eau Claire Company excepting the retail trade?

A. No sir.

Mr. OLIN: But for the other you sold both retail and wholesale?

A. Yes sir.

Q. What was your territory when you traveled for the Corn Products Company?

A. Wisconsin and Northern Michigan.

Q. Does that include the whole of Wisconsin?

A. Yes sir, and two cities in Minnesota, Winona and Duluth.

Q. Did you visit all the cities of Wisconsin?

A. All the principal cities, but not all the smaller towns.

Q. State whether you found a trade existing over that territory when you first started to travel?

A. I did.

Q. Do you know whether the same company had had a salesman in this same territory before you went there?

A. Some years before I think, but not immediately preceding my going up there. Well, they had too the first I believe, about four or five weeks, I went with the company in January, and I made a trip through Iowa and then in Wisconsin, and I have been in this territory continuously since, but during that four or five weeks there were one or two other salesmen in this state representing our house.

Q. Will you look at these labels and state whether you sold 553 any of the goods under any of those labels?

A. Yes sir.

Q. Sold under all of those labels?

A. Yes sir.

Q. Those labels are Exhibits 141, 142, 132, 137, 162, 184 and 185.

A. Yes.

(All such exhibits are hereto attached and made a part hereof.)

Q. Will you state whether the words "with cane flavor" were on the labels from the time that you commenced to sell in 1907?

A. They were to the best of my recollection.

Q. I notice 184 has on the bottom of it "John Hoffman & Sons Company, Milwaukee."

A. Yes sir. They control that brand in this territory. In fact, that is their private label.

Q. I notice that some of these have at the bottom Davenport Refinery. Was that on the label there at the bottom while you were selling under it?

A. Yes, it had that, and at times it had possibly a stencil "Corn Products Manufacturing Company" or something of that kind.

Q. I notice 132 has at the bottom "Illinois Sugar Refining Co." Was that on the label?

A. Yes sir, and also as I state the addition of the Corn Products—you see these are the old names for some of their refineries.

Q. How long did you continue in the service of the Corn Products Company selling this syrup under these labels?

A. From January 1907 up to the present time.

Q. Have you ever heard these syrups called for by consumers in the retail stores while you were traveling?

A. Yes sir.

Q. Was that something that was often, or otherwise?

A. Quite often. I might say all over the territory for that matter.

Q. How would they be called for?

554 Objected to as irrelevant.

Objection overruled.

A. Called for as "corn syrup."

Cross-examination by Mr. OLIN:

Q. As you stated, you are still in the employ of the Corn Product Company?

A. Yes sir.

Q. And I understood you to say you had been a traveling salesman for something like fifteen years?

A. Yes sir.

Q. Had you prior to the time you specify as working for the Eau Claire Wholesale Grocery Company been selling syrups?

A. No sir.

Q. Hadn't handled them in any way?

A. No sir.

Q. So that was a new line of business for you?

A. Yes sir.

Q. And that I think commenced at the beginning of 1906?

A. Yes sir.

Q. Do you remember whether or not when you first commenced to sell this so-called corn syrup in 1906 that it was simply labeled "corn syrup."

A. I don't believe I exactly understand your question?

Q. Please read the question.

(Question read.)

A. My recollection is that it was labeled corn syrup, yes sir.

Q. And without anything else on the label to indicate that there was any mixture in it?

A. That I wouldn't be positive.

Q. Well, to refresh your recollection, isn't that a fact?

A. I couldn't say that it is a fact.

Q. Well, isn't that your best recollection, and that this putting on of "cane syrup" or "refiners' syrup" came later?

555 A. I wouldn't be positive of that at all.

Q. And that still later there was put on "flavored with cane syrup" or "refiners' syrup"—wasn't that added quite recently?

A. Not to our brand.

Q. Well, wasn't it added after the middle of 1907?

A. I have seen some labels labeled as you mention.

Q. But the most of the labels you dealt with did not have that on, did it, "flavored with cane syrup" or "flavored with refiners' syrup?"

A. No sir.

Q. And most of the goods you put out, as I understand, under these various brands did not have on those words?

A. No sir.

Q. So you would say that this Exhibit 154 with Joannes Brothers' name on it and with "cane flavor" is quite a recent form of label?

A. That I wouldn't state how long it has been on.

Q. Well, does your testimony that you stated a little while ago that it was your recollection that "with cane flavor" or "flavored with refiners' syrup" was quite recent—did that apply to the Karo brand?

A. I don't know that I stated that my recollection was it was quite recent.

Q. You don't remember that—you said so here just a few moments ago?

A. I didn't say quite recently.

Redirect examination:

Q. You say that most of the goods you put out did not have on the brand "with cane flavor"?

A. I didn't say that.

Q. Well, how is that, since January 1, 1907, as to whether the brands did contain that?

A. My recollection is that it did contain those words, but not "flavored with sugar cane syrup" or "refiners' syrup."

556 A. A. SMITH, being first duly sworn, testified in behalf of the defendant— as follows:

(Examined by Mr. FAIRCHILD:)

Q. Where do you reside, Mr. Smith?

A. Chicago.

Q. What is your business?

A. I am manager of the syrup department of the Corn Products Refining Company.

Q. How long have you been in that position?

A. Well, since the organization of the present company, about two years and a half.

Q. Before that time what was your business?

A. From 1879 to 1890 I was with the B. B. Skelly Syrup Company, traveling.

Q. Where is that located?

A. Chicago.

Q. For how many years?

A. For nearly eleven years.

Q. And after that?

A. The following ten years to 1899 I was with Bradshaw & Waite.

Q. And then after that?

A. After that I took charge of the syrup sales of the United States Sugar Refining Company at their Chicago office.

Q. And continued how long?

A. Two years.

Mr. OLIN: The Chicago sales of the United States Sugar Refining Company?

A. Yes sir. Then from 1903 to February 1906, I think it was, I was in charge of the sales of the Warner Sugar Refining Company at Waukegan, and from that time until the present with the present company, the Corn Products Refining Company?

557 Q. Do you know an article as corn syrup?

A. Yes sir.

Q. How long have you known that article as an article of trade under that name, corn syrup?

A. I would say thirty years.

Q. Have you ever sold that article?

A. Yes sir.

Q. When did you first begin the sale of that article as corn syrup?

A. 1879.

Q. You were then, I understand, a traveling salesman?

A. Yes sir.

Q. What was your territory as a traveling salesman from 1879 on during the next eleven years?

A. Well, I had all the larger towns in Wisconsin, Minnesota, Iowa and Kansas out to the Pacific coast.

Q. During those eleven years were you handling this syrup under that name?

A. Yes sir, with other syrups, all grades of syrups.

Q. Were they sold at that time under brands bearing names like Kairomel or Diamond Drips, or anything of that kind?

A. No sir.

Q. How were they sold?

A. Why, we sold them under the brand of Number 6 and Number 25.

Q. Was that all there was?

A. "Corn Syrup No. 6" and "No. 25 Corn Syrup."

Q. In what kind of containers was the syrup sold in those days?

A. In barrels and half barrels and kegs.

Q. Did you sell this article all over your territory?

A. Well, to all those points I called.

Q. Well, how minutely did you cover the territory?

A. Well, I made only the larger towns and the larger stores. I called on the larger trade only, not jobbing trade, but the larger retail trade.

558 Q. Do you know whether that article corn syrup was a popular article under that name?

A. Very.

Q. Beginning when?

A. Well, I couldn't go back of my own experience in 1879.

Q. Well, I mean did it go back to that time?

A. I don't know. I wouldn't say so.

Q. I say did it go back to that time?

A. Oh, yes, it went back to that time.

Q. What opportunity did you have besides the sales you made yourself to know that it was a popular article?

A. Well, it was an easy article to sell. I had to offer as well as corn syrup, I had cane syrup, now called refiners' syrup. Cane syrup up to a year or two before that was the popular article, had been for years, because corn syrup was very little known, but on account of the color and smoother flavor of corn syrup it became popular almost instantly.

Q. Have you heard it called for by customers in the trade as you were traveling about?

A. Well, what do you mean, consumers?

Q. Consumers.

A. Oh, very frequently—that is, in early years—during that first ten years you speak of?

Q. Yes sir.

A. Yes sir.

Q. How would it be called for?

A. Corn syrup.

Q. When you state that do you include Wisconsin?

A. Oh yes.

Q. How early did this syrup begin to be put up in cans?

559 A. Well I would say in 1895—about that.

Q. Well did you ever travel as a traveling man in the sale of this article to the retail trade when it was sold in tin cans?

A. No sir.

Q. Well, after 1895 the sale still continued in barrels, half barrels and kegs?

A. To some extent.

Q. Well, what do you mean by that—as compared with?

A. Well, I mean by that the trade on barrels and packages rapidly decreased and the sale of cans increased proportionately.

Q. Do you know whether sales are still made in barrels and half barrels?

A. Yes sir.

Q. To the Wisconsin trade?

A. Yes sir.

Q. Now, when the sales began to be made in cans in 1895, state what you were then engaged in?

A. In 1895 I was then with Bradshaw & Waite.

Q. That gentleman who was on the stand here the other day?

A. Yes sir.

Mr. OLIN: What year was that?

A. 1895.

Q. Well, while you were with him and this article was put up in cans, how would the cans be branded, if at all?

A. Well, the customers—I was then selling the jobbing trade—

Q. Exclusively?

A. Yes sir, and every customer in each town would have his own particular brand, some would have Silver Drips, Amber Drips, a hundred different names.

Q. Would the parties furnish their own labels?

A. Frequently the parties would furnish their own labels,
560 we would allow them so much per thousand for that, and some times we furnished the labels.

Q. How would the syrup be ordered by these jobbers from the concern?

A. Usually under our own number, corn syrup.

Q. What do you mean by that?

A. We had our numbers, No. 2, for instance, No. 5 and No. 10.

Q. No. 10, what?

A. Corn syrup.

Mr. OLIN: You mean Bradshaw had?

A. Yes sir.

Q. If they were branded how would the orders be—what form?

A. Well, some times they would order under their own private brand, other times so many cans or so many barrels of corn syrup. If they were to be branded they would be very particular to specify the brands they wanted.

Q. When did you first know of labels bearing the name corn syrup, labels on the cans?

A. I think about 1900.

Q. You were then with whom?

A. In 1900, I was then with the United States Sugar Refinery.

Q. Were those brands put out then by the sugar refining company itself?

A. What do you mean, those brands?

Q. I meant the labels prepared by the sugar refining company themselves.

A. We had our own labels and customers furnished labels as well.

Q. Did you have more than one brand?

A. Well, you mean the company?

Q. Yes.

A. Well, we had three or four numbers. We sold by numbers.

Q. Barrels?

561 A. Barrels and cans both. We will say our No. 3 was a very popular article, we will say that Joannes Brothers wanted that under the name of Silver Drips, well he would order so many

barrels of No. 3 stenciled and labeled according to his own private brand.

Q. Well, I asked you when you first knew of the term corn syrup to be on the brand?

A. To be on the packages?

Q. Yes.

A. Well, I think about that time, I won't be sure.

Q. Well, how early can you be sure?

A. Well, I wouldn't want to say before 1903.

Q. You are now referring to the brands on the cans?

A. I am now referring to the brands on the cans.

Q. Do you know of a brand named Kairomel?

A. Yes sir.

Q. When did you first know that?

A. I couldn't say. I was in competition with that brand, but I couldn't say when I first knew it.

Q. You were in competition with that brand?

A. Yes.

Q. What do you mean?

A. That was put up by a competing refinery. That was put up by the Glucose Sugar Refining Company, as I remember it, and at that time when they put that brand on the market I was with the United States Sugar Refinery Company.

Q. What year was that?

A. That was in 1900, but I won't be sure.

Q. Was it as early as 1903?

A. Oh, yes.

Q. Do you know about the Royal brand of Corn syrup?

A. Well, their factory had a Royal brand.

562 Q. When did you first know that brand, Royal Corn Syrup?

A. Well, it's a general statement, but I would say from the first year they began putting up cans of syrup.

Q. Well, I said Royal Corn Syrup?

A. Well, offhand I would say in 1903 and 1904. I wouldn't say positively as to the time.

Q. Do you remember when the Diamond Drip Corn Syrup brand came out?

A. I couldn't say as to Diamond Drip Corn Syrup.

Q. Golden Glory Corn Syrup, when did you first know of that?

A. Well, I would say about 1905 perhaps, that's merely a guess, I couldn't tell you exactly. It was a competing brand, I hadn't anything to do with that factory and we were fighting it, but I couldn't tell you how far back it was.

Q. Well, could you put that as early as 1905?

A. I think so. I think that is about the time.

Q. Exhibit 132, Goldren Crown Corn Syrup. Did you know of that brand?

A. Not especially. Well, I would say I knew it in a general way. I have no doubt I have seen it many times. That was also a competing brand.

Q. Atlas Corn Syrup?

A. My answer would be just the same.

Mr. OLIN: Well, as to when?

A. Well, about 1905. That is, as "corn syrup" you understand.

Q. When you say 1905 you mean that you know it came out then?

A. About that time.

Q. The Cres-cent Corn Syrup. Do you remember that brand?

A. Yes sir, I would say about the same period.

Q. The Clover brand of corn syrup?

A. About the same period.

Q. Well, you couldn't fix that date, I understand?

563 A. No, I couldn't fix that date.

Q. Karo Corn Syrup, do you remember that?

A. Very well. I think that came out in 1903.

Q. Do you remember when the words "with cane flavor" appeared on these that I have mentioned?

A. Why, it is very recently, within a year I imagine, within a year I should say.

Q. Within a year of now?

A. You are talking of "with cane flavor"?

Q. Yes sir.

A. Oh, for a number of years, cane flavor. I was getting tangled up with "cane and refiners'."

Q. Now, to what extent, Mr. Smith, had this product corn syrup been sold by your company, the Corn Products Company, and its predecessors in the state of Wisconsin since the early part of 1905?

A. You mean the amount of sales?

Q. I say to what extent?

A. Well, do you mean approximate figures?

Q. Yes, can you tell?

A. Yes, if I can refer to the note I have.

Q. Yes.

A. These figures are taken from the books of the company.

Mr. OLIN: You haven't those books here?

A. No sir, I haven't. From May 1st to December 1st, 1905, there was approximately 190 cars sold in the state of Wisconsin. This represented about 1,100,000 tin cans, and about 5,000 wood packages, that is, barrels and half barrels, all sized wood packages, some would be kegs too. In 1906 approximately 200 cars, containing 1,250,000 cans and 5,500 wood packages. In 1907 to July 13th same year approximately 120 cars containing 900,000 cans and 1,000 wood packages.

564 Q. State whether any of these cans bore any of the labels that you have referred to here?

A. Many of them, yes sir, many of them, same style of label appeared on the cans that were shipped into Wisconsin.

Q. Were they all labeled either one or the other?

A. They were all labeled something.

Q. Well, what do you mean by that?

A. These cans were all labeled and the barrels were all stenciled.

Q. Well, my question was whether they covered all the labels that you referred to or some of the labels?

A. Well, I presume so—undoubtedly.

Mr. OLIN: Well, do you know?

A. You refer to those labels there?

Q. Yes.

A. Well, if you will go over them again, please. I could mention a good many of the labels if you go over them.

Q. Well, mention them.

A. Well, you mention them there and I will tell you whether they came into the state of Wisconsin.

(Labels handed witness.)

A. The Clover brand for one, Kairomel, Karo, the Royal, Golden Glory, Diamond Drips. Those I know were shipped into this state.

Q. During that period state whether the cans that you refer to, bore one label or the other?

A. Yes sir.

Q. Do you know anything about the sales that have been made to the wholesaler here in this city, Blackburn, I believe, during the last year or part of the last year—under what brand they have been shipped to him?

A. No, I couldn't say.

Q. You hadn't anything to do with anything except the syrups themselves?

565 A. Yes. I have charge of the sugar sales as well, cereal sugar.

Q. Have you charge of the sales, to confectioners and to manufacturers, of glucose?

A. Well, not actively. I have a good deal to say about the sales of all the products.

Q. I will ask you whether since January 1st, 1907, sales by the company have been exclusively through Mr. Reeds?

A. Oh, no, through various channels.

Q. What other channels?

A. Brokers.

Q. Located where?

A. Well, they are located in all the large cities.

Cross-examination by Mr. OLIN:

Q. Mr. Smith, I think you started in 1879 and was occupied for some eleven years as traveling salesman for syrups?

A. Yes sir.

Q. And your territory was Wisconsin, Iowa and all the principal cities clear out to the coast at that time?

A. Yes sir.

Q. And you were traveling, were you, at that time continuously for one firm?

A. Yes sir, for one firm.

Q. I think you said you found when you commenced to travel that this product corn syrup was a popular syrup?

A. Began to be, yes sir.

Q. At that time?

A. Yes sir.

Q. And continued to be a popular brand of syrup all the time that you were engaged in the sale of syrup?

A. Yes sir.

Q. You said you also sold cane syrup and that this syrup by reason of its color was more attractive than cane syrup?

566 A. Yes sir, in part.

Q. I understood you to say that it was sold to the consumer under that name?

A. Yes sir.

Q. And it had established a very wide and general reputation both as to name and as to quality during those eleven years?

A. I do, sir.

Q. It had become very popular, so as to really supersede largely the demand for the older syrups, such as cane syrup and molasses and sorghum?

A. I wouldn't say molasses.

Q. Well, sorghum syrup.

Q. No, I wouldn't say sorghum syrup.

Q. But you would say cane?

A. Yes sir.

Q. Sorghum syrups were still popular?

A. Well, in very, very limited territories, also today.

Q. Practically the only syrup that was popular at all when you commenced to sell the corn syrup was cane syrup?

A. Yes.

Q. I suppose you wouldn't exclude maple syrup?

A. Well, maple syrup was very well known and very well liked.

Q. But the only syrup really that the corn syrup came into competition with then would be maple syrup and cane syrup?

A. Well, I would say that maple—People that buy maple wouldn't buy corn.

Q. So that the consumer came during those eleven years to be very familiar with this term?

A. Yes sir.

Q. And he was very much pleased with it apparently, from your experience—that's the fact, isn't it?

A. I presume so, yes sir.

567 Q. It was sent out under that brand by all the different dealers?

A. What do you mean by that?

Q. The brand corn syrup?

A. We sold it to the dealers, the dealer sold it to the consumer.

Q. Well, you were selling to the large retailer?

A. Yes sir.

Q. Now, let us confine it to the retailer. So that you branded it whatever it was branded when you sold it to the retailer in that way?

A. Yes sir. In 1890 I began selling the jobbing trade.

Q. When was it you began with Bradshaw?

A. 1890.

Q. I have it in 1895 that you went with Bradshaw & Waite.

A. You are mistaken. I think the record will show.

Q. The record will show just as I have it here, I think, but if you wish to correct it, you may do so.

A. Yes sir. Well, I started with Bradshaw—I said I was with the D. B. Skelly Syrup Company for eleven years, from 1879 to 1890 about, and from that time until I was with Bradshaw & Waite, I think I so testified.

Q. You were with Bradshaw & Waite then up to 1890?

A. No, I was with Skelly from 1879 to 1890.

Q. When did you go to Bradshaw & Waite?

A. 1890.

Q. You went to Bradshaw & Waite in 1890 and you remained there how long?

A. Until about 1900.

Q. So you were there ten years?

A. Yes sir.

Q. Now, when you went to Bradshaw & Waite you were engaged in selling the goods that they were putting out upon the market?

568 A. Yes sir.

Q. You sold to these retailers?

A. No sir.

Q. Or to jobbers?

A. To jobbers.

Q. To the wholesalers. And you said that they were demanding that the goods be branded under the names of Honey Drips and Fancy Drips and Table Syrup?

A. No sir, not maple syrup.

Q. I didn't say maple, Table Syrup?

A. Table Syrup, yes sir.

Q. Rock Crystal or Crystal Drips?

A. Yes sir.

Q. Rock Candy Drips?

A. Yes sir.

Q. Or a hundred others?

A. Every imaginable name you could think of.

Q. And none of them demanding the name corn syrup—you agree with Mr. Bradshaw on that?

A. That none of the trade demanded the corn syrup?

Q. None of them had put on the goods the name "corn syrup"?

A. I don't think they did, no sir.

Q. Will you now please explain to the court why it was that if this article had become so popular during the eleven years you dealt with it, 1879 to 1900, is it——

A. Yes sir.

Q. —yes, to 1900, throughout the entire middle west and western country, that is 1900, the men who were dealing in it demanded all these other names and none of them demanded the name corn syrup?

A. Why, the reason was because every jobber wanted his own particular brand, he thought he could put in his brand just a little better than the other fellow and get a little better price.

560 Q. Although this had become such a popular article under the name of corn syrup?

A. Yes sir. It was all sold as corn syrup.

Q. Is that your only explanation why that term was dropped by all these wholesale dealers?

Q. So they could get a better price for their product?

A. Yes sir.

Q. By selling it under some other name, that's what you mean?

A. Yes, but not as a deception I don't mean to say.

Q. I didn't ask you anything about a deception. For some reason they abandoned that name, didn't they?

A. I have just given you the reason.

Q. They abandoned the name which you said had become so popular?

A. Yes sir.

Q. And the only reason is that they wanted some other name?

A. They didn't want any other name, they sold it as corn syrup, there is no question about that.

Q. How do you know that they sold it as corn syrup?

A. Because the trade demanded it as corn syrup.

Q. How do you know the trade demanded it as corn syrup when you say that these men who bought the article demanded that it be branded something else?

A. Because it had become so popular.

Q. It became so popular that they dropped the name, is that what you mean?

A. No, I don't think the name was ever dropped except on the label.

Q. Didn't you say a moment ago that you agreed with Mr. Bradshaw that you didn't put out those goods under any brand of corn syrup?

A. No.

Q. Then they had demanded the country over that that name corn syrup that had become so popular be dropped?

570 A. I wouldn't say so, no.

Q. Now, that is a fact, isn't it?

A. The fact is that they wanted these private brands in order that there would not be that competition.

Q. The fact is they wanted these other brands?

A. I am giving you the fact as I see it.

Q. And you can't give any other reason?

A. A very good reason.

Q. Why, now did you go back to the term corn syrup?

A. Well, for the reason that I think the agitation started when the law of Michigan was passed.

Q. It is for the reason, is it not, that there had been legislation

passed in the different states which prohibited your selling these mixtures under these fancy names?

A. Well, not in all the states, no.

Q. Well, in a number of them?

A. A number of them.

Q. And you were dealing in different states?

A. Yes sir.

Q. You went back to the term corn syrup because of the legislation that prohibited the use of these other names for these mixtures?

A. I believe that had something to do with it.

Q. And the reason was that you understood the names for those mixtures were deceptive and fraudulent?

A. I wouldn't say that they were either deceptive or fraudulent. When a consumer bought, we will say for example Honey Drips, the consumer wasn't being deceived, the consumer knew he was getting corn syrup.

Q. You know that the consumer knew it?

A. I know that the consumer knew it.

Q. Did you think the consumer knew that he was getting 80 or 90 per cent or more of glucose?

571 A. It was so stipulated on most of the labels.

Q. What, at that time, that he was getting 90 per cent of glucose?

A. Why, for many years we have been stenciling 90 and 85 and 80, depending upon the amount of cane we use.

Q. Did you stencil any such percentage prior to about 1903, 1904 and 1905—in there?

A. Well, I couldn't tell you.

Q. You didn't do it, did you, until the legislation required it?

A. Perhaps that's so.

Q. Well, you know it's so.

A. No, I don't know it's so.

Q. Isn't it a fact that you never stenciled or marked any of these packages, either barrels or cans or casks or kegs, containing this mixture the percentage of either glucose or corn syrup or cane syrup or maple syrup or sorghum syrup?

A. That we never did?

Q. You never did until the law required it?

A. I wouldn't say whether that was so or not. I couldn't tell you. I presume that is the case.

Q. Yes, and you presume so, don't you, because you know that prior to the enactment of those statutes you had been selling this article under these fancy names, not indicating anything other than the name?

A. We didn't sell the fancy cans. We sold out goods under certain numbers. The jobbers stipulated what they wanted on those packages and we put it on.

Q. Some of which you printed you said and others were printed by them?

A. Yes sir.

Q. You sold it in such a way as to make as large sales as possible, didn't you?

572 A. It didn't make any difference to us, we could sell just as much under the brand "Corn Syrup" as Honey Drips. They wanted corn syrup and wouldn't have anything else.

Q. You say the trade wanted corn syrup and wouldn't have anything else?

A. That's it exactly.

Q. Now, what you mean is that the trade demanded a mixture made up of 80 or 90 per cent of glucose with some kind of cane syrup or sorghum syrup to give it color and flavor—that's what you mean?

A. If you confine yourself to corn syrup, I will answer yes.

Q. You never attempted to sell the unmixed article as a syrup, did you?

A. Yes I have sold the unmixed article as a syrup.

Q. As a syrup?

A. Yes sir.

Q. To whom did you ever sell that as a table syrup (indicating number 1 exhibit).

A. To the retail trade.

Q. As a table syrup?

A. Yes sir, just like that. Not in any large quantity. Occasionally a man would want that.

Q. He wanted glucose, did he?

A. He didn't want glucose, he wanted a syrup, a white syrup.

Q. Will you name any dealer that you ever in your life sold number 1 in its unmixed condition as a table syrup?

A. That looks to me like glucose.

Q. I know it.

A. Well, I have sold glucose as a table syrup. I couldn't give you the names, but if I could go back on my books to the retail trade years ago—only in a limited quantity, a man would want a white syrup.

Q. A white syrup?

573 A. I call that a syrup.

Q. Well, if he wanted a white syrup he would get Rock Candy Syrup, wouldn't he?

A. No he wouldn't get Rock Candy Syrup.

Q. He would get a white syrup then?

A. If you will permit me to explain. You can hardly sell today a Rock Candy Syrup.

Q. I didn't ask you anything about selling today.

A. Well, at any time.

Q. We are dealing now with selling unmixed glucose, commercial glucose, as a table syrup.

A. I am telling you that I have sold that in that condition as a syrup.

Q. For table use?

A. For table use, yes sir.

Q. That's a colorless article without any distinctive flavor and is insipid?

A. Yes sir, it is insipid.

Q. You have tasted of it, haven't you?

A. Yes sir.

Q. You would like that on your griddle cakes, wouldn't you?

A. No. I might not like sorghum, but many people do.

Q. That is the only reason that you wish to give?

A. Yes sir.

Q. Now, do you wish to say and to testify here before the court that it isn't the mixture in with this glucose that has enabled you to sell this article?

A. No, I want it understood that it is a mixture that has made this popular, yes sir.

Q. The only thing that gives any characteristic to the article you sell under the name corn syrup is something you mix in with
574 the glucose, isn't it?

A. Yes sir.

Q. And you have known that all of these years?

A. Yes sir.

Q. And you know that people as a rule wouldn't buy glucose as a
table syrup unmixed with anything else?

A. Not as a rule, no sir.

Q. Well, you don't want to make much of an exception, do you?

A. No, I wouldn't.

Q. Now, do you wish to say that you didn't have just as much to do with the selling of this unmixed article in barrels as you had to do with selling it in cans for this Corn Products Company?

A. Speaking of the present company?

A. Yes sir.

A. Well, I am in direct charge of the sales of syrup. I am not in direct charge of the sales of glucose.

Q. Who is?

A. Mr. Van Sickle today is in charge of the sales of glucose.

Q. Have you ever been?

A. Not for this company.

Q. He is under you?

A. No sir, he is my associate.

Q. And you said you had a good deal to do with the putting out of the article in barrels?

A. Yes sir. I am consulted, that's all.

Q. And it has always been stenciled, hasn't it, until after this ruling at Washington, as "glucose" when it is put out in barrels?

A. Yes sir, up to recent years, up to a very recent period it has been sold as glucose. Now it is sold as "unmixed corn syrup".

Q. You sold to grocers here, did you not, between 1879 and 1890, in the city of Madison?

A. Yes sir, I think I have.

575 Q. This was one of your points?

A. Yes sir.

Q. You are familiar, are you not, with the older men that were here in the trade in the grocery business at that time?

A. Well, I wouldn't say that I could remember the names.

Q. Do you know Mr. W. A. Oppel?

A. The name is familiar, but I wouldn't want to say that I knew him.

Q. Did you sell any to him?

A. I couldn't tell you.

Q. Did you deal with him?

A. I couldn't tell you.

Q. You dealt with the main grocerymen here, didn't you?

A. Yes sir, I think I did.

Q. That were here doing business at that time?

A. I called on only the larger dealers.

Q. I would like to know if you ever sold to him any of this mixture that you have been naming here as corn syrup under the name of "corn syrup" during those eleven years?

A. If I sold him I sold him either number 6 or number 25 corn syrup.

Q. You sold that article in the city of Madison?

A. I presume I did.

Q. No reason why you should skip this city?

A. Not at all.

Q. During this entire eleven years can you name a single dealer here in the city of Madison where you sold that article?

A. No, nor I couldn't name a dealer in Wisconsin particularly.

Q. Not one in the state. Could you out in Oregon?

A. No, I couldn't give you the name.

Q. No reason why you can't remember the dealers in Wisconsin as well as elsewhere?

A. I could remember here as well as elsewhere.

Q. I think you said something about cane syrup being sort of a dirty substance, that they wouldn't buy it?

A. I didn't say anything of the kind.

Q. Dark colored?

A. It don't necessarily have to be, no sir.

Q. Well, was it dark colored? What was the reason you gave that people preferred this mixture mostly made of glucose?

A. When?

Q. When you began there in 1879?

A. Why, because it was darker in color and very much stronger in flavor.

Mr. FAIRCHILD: What was?

A. The cane.

Q. And yet it was that very syrup mixed in with the glucose that was enabling you, wasn't it, to sell the article?

A. Yes sir.

Q. Did you explain that to the people when you were in competition?

A. I frequently mixed it up for them.

Q. You frequently mixed it up for them?

A. Yes sir, right before their eyes.

Q. Do you know what that article is, Exhibit 160?

A. Well, it looks like a syrup, that's all I could say.

Q. Could you tell us what that is?

A. You mean by taste?

Q. Smelling of it?

A. No, I don't think I could. This smells as though it had molasses in it.

Q. Do you know the color of it?

A. Well, I know it's a light color.

Q. You have dealt in syrups for all your life most?

577 A. Yes.

Q. And you can't tell us what that syrup is?

A. I can't by the smell, no.

Q. Well, taste of it.

A. Well, I don't know as I could by taste. (Tasted by witness.) I would say it was a mixture of glucose and molasses.

Q. I will hand you number 16, what is that?

A. I would say that is a corn syrup. I would say that had some Louisiana Molasses in it.

Q. That is, the first here, number 160?

A. Yes sir.

Q. You don't recognize that as a good quality of cane syrup, do you, Exhibit 160?

A. No, I wouldn't.

Q. Now, do you recognize number 16 as corn syrup?

A. Yes sir, I think that is.

Q. As an expert on syrups which of those do you say is the finer syrup?

A. Well, I should say that was finer.

Q. Exhibit 160?

A. Yes.

Q. Now, you want to say then, with those two articles put up side by side that the consumer would prefer your corn syrup, so-called, to your cane syrup?

A. I would say that, but you know it is just a matter of choice.

Q. Number 16 is your corn syrup, taken from one of your samples, as the testimony shows?

A. Do I understand that that is a straight corn syrup?

Q. Number 16 is a straight corn syrup.

A. The first one?

578 Q. Oh, the first one is a straight cane syrup. The article that you referred to as being in competition?

A. I don't think it is a merchantable article. I think it is a very hard article to find.

COURT: Number 160 is not a cane syrup, is it?

Mr. OLIN: Well I rather think I am misled there. It is a mixture.

A. I was going to tell you if it was a cane syrup it was an unmerchantable article.

Q. I made a mistake. That is your 85% *per cent* of glucose and 15 *per cent* of good cane syrup.

A. What is that, the same one I tasted before?

Q. Yes, the first one, which you thought was cane syrup.

A. I didn't say it was cane syrup, no.

Q. I thought you did at first?

A. I thought it had a little New Orleans Molasses in it and still think so.

Q. That is the same thing in your mind as cane syrup—you don't make any distinction between New Orleans Molasses and cane syrup, do you?

A. Yes I do.

Q. But it's the flavor in either case, whether cane or molasses, or sorghum, or maple, that enables you to sell this article at all as table syrup?

A. That's right, sir.

Redirect examination by Mr. FAIRCHILD:

Q. Mr. Smith, you have stated that you sell corn syrup in barrels now?

Q. Yes sir.

Q. Do you sell corn syrup in barrels under any other name than corn syrup?

A. Not at all.

579 Q. When you spoke about selling an article in barrels as glucose, to whom are such sales made?

A. To confectioners and mixers of syrups.

Recross-examination by Mr. OLIN:

Q. Was that change by which you now sell this unmixed commercial glucose under the name of corn syrup demanded by the trade?

A. Why, I wouldn't say that that was the case, no.

Q. Well, you know it wasn't?

A. Well, I presume it was not.

Q. It was a change made by this company, was it not?

A. Yes sir.

Q. After that ruling?

A. After what ruling?

Q. After the ruling of the secretaries at Washington February 13, 1908.

A. Well, as a matter of fact I couldn't say when it was or the cause. It originated in New York. We got our instructions in Chicago.

Q. Got your instructions from 26 Broadway, didn't you?

A. Yes sir.

Q. And so now we have got the same name, have we, to designate both the mixed and the unmixed article as put out by the Corn Products Company?

A. Yes sir.

Q. It's corn syrup whether it's glucose or mixed?

A. It is corn syrup, or corn syrup unmixed.

Q. Or whether it is glucose mixed with some article that gives the character that enables you to sell it as a table syrup?

A. As a general principle, I would say, yes.

Redirect examination:

Q. When you sell what is called glucose, the unmixed, 580 what name is that sold under?

A. It is sold under "corn syrup"——

Objected to as gone over.

Q. When did you begin to sell under that label?

Objected to as already answered.

Objection sustained.

Mr. FAIRCHILD: He hasn't stated, your honor, when he began to sell this as "corn syrup."

Court: He has so stated, according to my recollection, not fixing the date exactly, but he said a short time ago, as I recall the testimony.

Q. Now, has any of the Madison dealers given your company directions to have their labels or to have his label marked "glucose with cane flavor"?

Mr. OLIN: Objected to as going into that unnecessarily. The only testimony is by Mr. Blackburn, it is uncontradicted and we don't question it.

Mr. FAIRCHILD: That is all right then.

581 Dr. T. B. WAGNER being recalled testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Doctor, when did you first go with the Corn Products Company or any of its predecessors?

A. In 1898.

Q. Have you remained with them ever since?

A. I have.

Q. What time in 1898?

A. The fall. I believe I can give the exact date if desired. I remember having been in the employ of the United States government up to October 15th, and I am sure that I reported in Chicago with the Glucose Sugar Refining Company in 1898.

Q. Then with what other companies?

A. The Corn Products Manufacturing Company, the Corn Products Company and the Corn Products Refining Company.

Q. Were they all located in Chicago?

A. Yes, although the headquarters of the company at times were in New York City at 26 Broad street.

Q. Well, did they have their factories in Chicago?

A. In Chicago and in the west generally.

Q. Where in the west?

A. In Illinois, Iowa, Nebraska, Indiana.

Q. They had factories in all those places?

A. Yes sir.

Mr. OLIN: In Ohio did you say?

A. In Ohio, yes.

Mr. OLIN: Did they have any factories in Illinois?

A. Yes sir, several.

Q. Are you acquainted with the name "Corn Syrup"?

582

A. I am.

Q. Since what date?

A. Very soon after my entrance into the corn products business. To my distinct recollection as far back as 1900.

Q. Has this article been manufactured under that name by these various companies that you have referred to?

A. It has been sold under that name by these various companies and manufactured of course too.

Q. When did the manufacturers of glucose begin the manufacture of a table syrup?

A. In cans or in bulk?

Q. Yes, either.

A. It was done on a small scale in the 90's.

Q. Beginning when in the 90's?

A. I do not know. It was a small concern, they ground about five thousand bushels of corn a day I believe or less even, taking it as an average.

Q. When did it begin to be manufactured as a syrup to any considerable extent by the producers of glucose?

A. 1899-1900.

Q. Before that by whom was it produced?

A. By the mixers. The mixers are parties who buy from us the glucose in bulk; tank cars or in barrels, they also buy various kinds of other syrups, and they blend them, and therefore they are known to the trade or among the trade as mixers.

Q. Well, these companies that you have been with, when did they begin to put out table syrup under the name of corn syrup?

A. As early as 1900, I am sure of that.

Q. In those days was it put out in cans at all or in other containers?

A. In 1900?

583

Q. Yes.

A. It was put out in cans and other containers.

Q. What other?

A. In barrels, kegs, pails, jacketed cans—I mean by that large size cans; kits probably too.

Mr. OLIN: In pails, kits, kegs?

A. Kegs.

Q. And cans?

A. Yes. I said jacketed cans in distinction from our ordinary cans. The jacketed cans have a jacket of wood. They are all sized cans; five gallons, ten gallons, twenty gallons.

Q. Does the trade still continue in that same form to a certain extent?

A. It does.

Q. I mean in those same containers?

A. Yes sir, exactly.

Q. When your companies began to first put out this commodity as a table syrup under this name, about what proportion would you put out in cans that were put up in boxes of say five, ten, twenty cans?

A. I have no figures at my command that would give the exact percentage, but if I am permitted to state it roughly I would say by far the largest part was put up in cans.

Q. Beginning as far back as 1900?

A. Oh, yes sir.

Q. In what way were those cans branded, what labels if any did they bear, beginning at that time?

A. Our refinery labels, the largest number of them, were corn syrup labels.

Mr. OLIN: The refinery labels—that is, the sugar refinery?

584 A. Those are our labels in distinction from the trade labels.

Mr. OLIN: You mean of these different companies?

A. I am talking about the period of 1900. I can testify to only one company.

Q. What company is that?

A. The Glucose Sugar Refining Company, later on known as Corn Products Manufacturing Company.

Q. Now I will ask you there in order that we may have no mistake, what companies did the Corn Products Manufacturing Company succeed to or absorb to it in that way?

A. The Corn Products Manufacturing Company was known at the time of its charter organization as the Glucose Sugar Refining Company and had acquired by purchase the American Glucose Company, the Chicago Sugar Refining Company, the Firmerich Manufacturing Company, the Davenport Syrup Refining Company—I am not quite sure of that name, however—and some sugar refining company located in Rockford, Illinois, whose name is not at my command either at this moment.

Mr. OLIN: He uses the term Corn Products Manufacturing Company purchased out these companies. Now that is not the name of the present company?

Mr. FAIRCHILD: No, that is Refining Company.

Mr. OLIN: Could you state the date when that purchase was made?

A. It took place August 1st, 1897, thereabouts, during that summer.

Q. Did the succeeding companies operate the factories of those different companies which it purchased?

A. It did.

585 Q. Clear down to date?

A. No sir.

Q. But for a number of years?

A. For almost ten years.

Q. Well, was the product from each of these factories put out under the same brands?

A. The syrup business was concentrated in one factory, located at Davenport.

Q. You say they were put out under the brand of "Corn Syrup"?

A. Yes sir.

Q. Was there anything else on the brand than that or were those the words on the brand?

A. There was a qualifying brand like Golden Glory Corn Syrup, and others.

Q. Do you know any other brands?

A. Not very distinctly, because the first three years of my connection with the Glucose Company I came very little in contact with the syrup end of the business; so the later labels I have better in mind than those early ones.

Q. Was there anything else on any of the other brands, except this Golden Glory brand, did the others have a name also?

A. Yes sir, they had.

Q. You put out more than one other brand than the Golden Glory?

A. Under the name of "corn syrup"?

Q. Yes.

A. Oh, indeed we did.

Mr. OLIN: What date now?

Mr. FAIRCHILD: 1900.

Q. Were those the company's brands?

A. Those were refinery brands, yes sir.

586 Q. Was any of this brand put out under the brands of jobbers?

A. I hardly think so. I hardly think so.

Q. Were they later on?

A. I don't think so.

Q. Did your company put out any brands that did not bear the name "Corn Syrup"?

Objected to as leading and suggestive.

Objection sustained.

Exception by defendant.

Q. State whether the words corn syrup were or were not on all brands?

A. I don't think they were.

Q. On what brands did these words not appear?

A. On quite a number of brands. It took us a long time to weed out the brands which we later on discontinued. Those were brands similar in character to those which we still continued putting out for the jobbing trade under their own labels.

Q. Now did you put out after 1900 any syrup under the brands of jobbers or dealers, their own private brands?

A. We did.

Q. Those are the brands that I am calling your attention to, as to whether they bore the name of "corn syrup"?

A. Yes, they were.

Q. All of them?

A. No sir.

Q. Up to what time did you continue to put out any brands which did not bear the name of corn syrup?

A. The label bears the name "corn syrup" in one form or another. It is either in the title, in the name of the product itself or it appears somewhere on the label, as information to the public, to the consumer.

587 Q. You mean clear back to 1890?

Objected to as leading and suggestive.

A. No.

COURT: The answer may stand.

Q. What date did you discontinue putting out any labels not bearing the name corn syrup?

A. We had not discontinued that altogether, as I tried to explain. For instance, we will put out, and we are putting out today, still labels—if you will permit me I will take the Golden Glory illustration, although it does not satisfy this particular illustration, Golden Glory Table Syrup, and in the same space that contained the words "Table Syrup" we put in prominent type "90% corn syrup, 10% refiners' syrup" as the case may be. Now in this case the words "corn syrup" don't appear directly in the name of the brand itself, but the consuming public is aware that it contains corn syrup.

Q. Did you begin back as far as 1900 to do this?

A. We began as far back as 1900 introducing the name "corn syrup", replacing other brands in that way.

Q. Well, state when you had replaced brands that did not bear the name in any way of corn syrup, either in the name of the syrup or in the proportions of the ingredients?

A. That is quite hard to answer, Mr. Fairchild, because naturally some time elapsed from the date or the day when instructions are given to discontinue until they are actually discontinued. Naturally there is a large job involved. You have got to go to your printers and to the engravers and it takes them months and months to get the new labels out, and of course in that way I can't answer your question.

588 Q. Well, can't you give us any date approximately even when your company discontinued putting out any labels that did not bear the name corn syrup in one way or another?

A. It must be several years.

Q. Well, several—what do you mean by several—can you give us any idea now?

A. I should say that from 1903 on practically we were on a strictly corn syrup basis.

Q. Is there any reason why you name the year 1903 as the date?

A. Because we started in that year on an active advertising campaign preaching the gospel of corn syrup.

Q. Who conducted that advertising campaign?

A. N. W. Err & Son, Philadelphia; more particularly by H. N. McKinney, who has testified in this case.

Q. Were you a director of the company at that time?

A. I was.

Q. Familiar with what went on?

A. Yes sir.

Q. Can you tell us how much money your company expended in the advertising campaign of 1903 and 1904?

A. Something like five hundred thousand dollars.

Q. Did you begin as early as that on this Karo corn label?

A. Advertising?

Q. Advertising and selling?

A. 1903. It was put out in 1903. The experiments were made in 1903.

Q. Has the sale of that been continuous?

A. Yes sir.

Q. To date.

A. Up to date.

589 Q. To what extent, I don't mean in dollars and cents, but to what extent is that true in regard to states in which the sales have been made—whether it includes the whole United States or not?

A. The advertising?

Q. The sales?

A. Oh, the sales of corn syrup I should say, broadly speaking, that they reach every state of the Union.

Q. In Canada also?

A. In Canada also, yes sir.

Q. State whether the sales are as extensive in other states as in Wisconsin?

A. I think that Wisconsin is one of our good, large corn syrup states. That is, I mean by "large" that the state calls for quite a supply of corn syrup, a considerable amount of it.

Q. Of other states in the same proportion?

A. Yes, I mean Wisconsin is among the leading states.

Mr. OLIN: I object. This witness don't need to be led. Why don't you ask him what the sales are in the respective states?

Mr. FAIRCHILD: Well, I don't care what the sales are now. I just want to get at whether they are as extensive in other states as this.

Mr. OLIN: Well, I have every reason to believe that they are different, and that throws the burden on me.

Q. Are you familiar with the manufacture of glucose?

A. I am.

Q. From the beginning to the end of it?

A. Yes sir.

Q. I will ask you, before I go into anything on that question, under what name your sales to confectioners and manufacturers have been made of the unmixed glucose?

- 590 A. Under the name of "Glucose."
- Q. Do you make any exceptions here in Madison?
- A. No sir.
- Q. Do you mean up to the present date?
- A. I don't quite get the question?
- Q. Was the change made in the name under which the present sales are made recently?
- A. Yes, we have adopted the policy of applying the name "corn syrup" to the unmixed article as well as to the mixed article.
- Q. Well, any name connected with that?
- A. "Unmixed." This was done to bring about a uniformity in our business, in our billing invoices, etc.
- Q. State what the first stage is in the manufacture of glucose after the corn is taken in the kernel to be converted into glucose?
- A. Well, we soften the corn by soaking it in water, there are a few successive steps, and we finally reach the green starch as described by Professor Chandler yesterday.
- Q. Now is this green starch a commercial commodity?
- A. No sir. But the corn is a commercial commodity.
- Q. State whether it is ever sold as a commercial commodity?
- A. No sir.
- Q. Is there a different process in the manufacture of corn starch and laundry starch?
- A. Yes.
- Q. What care is taken, doctor, in the manufacture of glucose to insure a pure and wholesome article? I mean the degree of care.
- A. I think it's an extreme degree of care. Our product from the time the product is delivered to the factory, the corn never comes in contact with the hand of an operator. We have the most
591 sanitary conditions. All the handling of the material is automatic, by machinery. The greatest cleanliness is observed. I don't think it is easy to find any food factory where more sanitary, cleaner conditions exist than in our up-to-date factories.
- Q. Well, state as to the course of manufacture itself, whether any deleterious—
- A. There is nothing introduced that could in any way prove injurious to the resulting glucose or the starch for that matter, the corn starch, all the materials are carefully tested.
- Q. What do you mean by tested?
- A. In every way, to safeguard against everything, the same as a manufacturer of cane sugar or other material, all employing clarifying agents and the like; you want to be assured that your materials are of the required standard.
- Q. Are men employed especially for that?
- A. Yes sir.
- Q. Do you know whether Dr. Wiley of Washington was a member of the United States committee on food standards when Circulars Nos. 10, 13 and 17 were issued and promulgated?
- A. Yes, to my own knowledge, because I met him on various occasions before the committee.

Q. Are you acquainted with the fact as to whether Sprague, Warner & Company put out a published price list?

A. I am.

Q. Is that a wholesale house in Chicago?

A. It is a wholesale grocery house in Chicago.

Q. I will ask you to look at Exhibit 186 and state whether that is one of their price lists?

A. It is.

Mr. FAIRCHILD: We offer in evidence the quotation on page 26 of this price list of "Karo Corn Syrup, in 2, 5 and 10 lb. cans."

Mr. OLIN: What is the purpose?

Mr. FAIRCHILD: For the purpose of showing that it is a commodity that is on the market for sale.

Mr. OLIN: As to the price of it?

Mr. FAIRCHILD: No, I don't care anything about the price. I don't offer the price at all. Under date of July 1st, 1904.

Mr. OLIN: It seems to me we ought to have a more recent date.

Mr. FAIRCHILD: I purposely went back to get an earlier date.

Mr. OLIN: Have you got some later ones?

Mr. FAIRCHILD: We have some later ones here.

Q. I will ask you if McCord-Brady Company are wholesale grocers and if so where do they carry on their business?

A. Omaha, Nebraska.

Mr. FAIRCHILD: I will read into the record the part that I wish from Exhibit 186. Under the head of Syrups is: "Karo Corn Syrup. 10c. tins (2 lbs.) 24 in case. 25c. tins (5 lbs.) 12 in case. 50c. tins (10 lbs.) 6 in case."

From Exhibit 187, McCord-Brady Co., under head of "Corn Syrup, No. 99. Light cane drips, bbls. and 1/2 bbls." Then "Kairomel," giving the pounds and cans, 20 lb., 10 lb., 5 lb. and 3 lb. cans.

Mr. OLIN: Give us the price.

Mr. FAIRCHILD: 20 lb. cans, \$1.55 per case; 10 cans, 6 in case, \$1.55; 5 lb. cans, 12 in case, \$1.75. 3 lb. cans, 24 in case, 593 \$2.95. Then the Karo follows that. 10 lb. cans—what is that (indicating)?

A. Ten cent cans.

Mr. FAIRCHILD: 10c. cans, 24 in case—I want it to appear here that I am reading these prices at the request of Mr. Olin and not on my own motion.

Mr. OLIN: Yes. I object to the testimony, but if you put it in I want these prices.

Mr. FAIRCHILD: 10c. cans, 24 in case, \$1.84; 25c. cans, 12 in a case, \$2.30; 50c. cans, 6 in a case, \$2.30.

Q. I will ask you to look at this Exhibit 187 at page 38 under the head of "Corn Syrup" and ask if the "Rock Candy Syrup" under that heading is any of your brand?

A. No sir.

Q. And "Champion Syrup Refining Co." is that your brand?

A. No sir.

Q. And "Advo Table Syrup No. 1", is that your brand?

A. No sir.

Mr. FAIRCHILD: There seems to be three other brands of syrup under that general heading.

COURT: What is the date of that catalog?

Mr. FAIRCHILD: The date of this catalog is September 1904.

A. I don't know whether the first one is ours or not. "No. 99 Corn Syrup." And they say "Cane Drips." That is not ours.

Q. You say this Corn Syrup No. 99, Light Cane Drips, is not yours?

A. No sir, not our brand. No. 99 Corn Syrup may be ours, but Light Cane Drips is not ours.

Q. I will show you Exhibit 188 and ask you what that is.

A. That is a copy of "Trade," an independent weekly journal for merchants, published at Detroit, Mich., and issued February 15, 1905.

594 Mr. FAIRCHILD: On page 23 I offer in evidence what appears under the figures 16 at the head of the column and what appears under "Corn" and what appears under "Corn Syrup."

Q. I will ask you if that first heading "Corn" refers to syrups?

A. There is "Molasses" and "Corn," "Corn Syrup," "Pure Cane" on the headlines, and the word "Corn" means to everybody in the trade "Corn Syrup," although it is repeated after that.

Mr. FAIRCHILD: In the list headed "Corn" is "Barrels," "Half Barrels, Gallons, Hf. gallons, 2 lb. cans." Right below that under the heading "Corn Syrup" is "Karo, 24 10 lb. cans——"

Mr. OLIN: It is carried out how much?

Mr. FAIRCHILD: \$1.84. 12 5 lb. cans, \$2.30. Karo, 6 10 lb. cans, \$2.30.

Q. Do you know of the C. S. Morey Mercantile Company?

A. Denver, Colorado, yes sir.

Q. Is Exhibit 189 one of their price lists?

A. Yes sir, that is one of their price lists.

Mr. FAIRCHILD: It is headed "1906 Catalogue." It doesn't give any particular date. On page 60 under the head of "Syrups and Pail Jellies" occurs in a heading "Corn Syrup"—Golden (Blue Label) and under that: "Barrels, Golden, per gal." not carried out. "Half barrels, Golden, per gal." not carried out. "Jacket cans, 2½ gal. Golden 29 lbs." No prices here at all. "Jacket Cans, 2 gallon." Then "Cases, 3 20-lb. cans (71 lbs.) Cases 6-10 lb. cans (75 lb.-) Cases 12 5 lb. cans (74 lb.-) Cases 24 2 lb. cans (61 lbs.)."

Q. I call your attention to Exhibit 190 and ask you if that is the price list of any wholesale grocers?

595 A. That is the price list of the A. MacDonald Company of Winnipeg, Manitoba, received by me.

Mr. FAIRCHILD: On page 25, under the head of "Syrups", dated May 2nd, 1907, is "Crown and Bee Hive Corn Syrup in $\frac{1}{2}$ bbls". Then under that is: "2-lb. tins Davenport's Corn Syrup, 2 doz. tins in case, per doz. \$1.20."

Q. Calling your attention to Exhibit 191 I ask you what that is?

A. That's the price list of J. M. Anderson Grocer- Co., wholesale grocers, St. Louis, issued January 11, 1907.

Mr. FAIRCHILD: In column 41 under the heading "Syrups" is the following: "Corn, light or dark, bbls. per gallon .24."

Q. I call your attention to Exhibit 192 and ask you what that is?

A. This is the New England Grocer, published at Boston, Mass. January 11, 1907. It's a trade paper issued for the grocery trade.

Mr. FAIRCHILD: On page 45 in column 18 under the general head of "Syrups" is found "Karo Corn Syrup" and under "Karo Corn Syrup" is found: "10 cent pkg. 2 doz. tins 1.84. 25 cent pkg. 2 doz. tins, 2.30. 50 cent pkg. $\frac{1}{2}$ doz. tins, 2.30."

Q. I show you Exhibit 193 and ask you what that is?

A. Jordan's Western Grocer, the weekly price list of W. B. and W. G. Jordan, published at Minneapolis, Minn. January 12th, 1907.

Q. Is this a trade journal?

A. No, it is a price list.

Mr. FAIRCHILD: On page 9 in column 17 under heading "Sorghum" then there is a subdivision under it "40% Sorghum, 60% Corn Syrup". and under that "Choice, bbls." and carried out ".38", then "Choice $\frac{1}{2}$ bbls. .40; Choice $\frac{1}{2}$ gal. 1 doz. in case, per case, \$2.50; Choice, 1 gal. $\frac{1}{2}$ doz. in case, per case \$2.40; Choice, 2 $\frac{1}{2}$ lb., 2 doz. per case \$2.60."

Q. I will show you Exhibit 194 and ask you what that is?

596 A. That is a copy of the Merchants' Index, a trade paper for the retail trade, published at Denver, Col., January 19, 1907.

Mr. FAIRCHILD: In a column headed "Syrups" appears a subdivision headed "Corn." Under that last heading of "Corn" is "Barrels, per gal. .32; 20-lb. cans, 3 in case, 2.20; 10-lb. cans, 6 in case, 2.10; 5-lb. cans, 12 in case, 2.25; 2-lb. cans 24 in case, 1.85; 2 $\frac{1}{4}$ gal. jackets, .87."

Q. I show you Exhibit 195 and ask you what that is?

A. Copy of the Weekly Price Current of Winston, Harper, Fisher Co., wholesale grocers, Minneapolis, Minn. January 26, 1907, and received by me.

Mr. FAIRCHILD: On page 9 of that, under the head of "Syrups" is "Diamond Drips (Best Corn Goods)," by barrels, kits and half-barrels.

Here I have a list called the Commercial Bulletin and Northwest Trade, dated January 26, 1907. This is evidently a trade journal.

On page 43 in column 15 is found under the heading "Corn Syrup" quotation of prices per barrel, half-barrel, five and ten pound kegs (Marked Exhibit 196).

Michigan Tradesman, of Grand Rapids, Mich. a trade journal. On page 45, February 6, 1907, in a column headed "syrups" under the subdivision headed "Corn" is quoted the price by barrels, half-barrels, cases containing 20 1-lb. cans, 10 1-lb. cans, and 5 1-lb. cans, and 2½ 1-lb. cans. (Marked Exhibit 197.)

I have here a price list, marked Exhibit 198, Wulffing Grocer-Co., wholesale grocers of St. Louis, February 9, 1907, on page 3 under the heading "Corn Syrup" under that "Light or Dark" is quoted per gallon that article in barrels and half barrels.

Exhibit 199 is the Weekly Price Current of Winston, Harper, Fisher Co., wholesale grocers of Minneapolis, dated February 597 9, 1907, and on page 9 under a heading "Syrups" is "Diamond Drips (Best corn goods)" prices quoted in barrels, half barrels, kegs and kits.

Exhibit 200 is Sprague, Warner & Company's price list, dated February 15th, 1907, under a general heading "Corn Syrups, 85% corn syrup, 15% refiners' syrup" is quoted prices, put up in a large number of ways, barrels, half-barrels, jacket cans and in different pound packages, 10, 5, 4, 3½, etc.

Exhibit 201 is another number of the New England Grocer under date of February 22, 1907, which quotes the prices in "Corn Syrup" in the same ways.

Here is another one of Winston, Harper, Fisher Co. Here are later editions under later dates of Merchants' Index, and Wulffing Grocer-Co., J. M. Anderson Grocer-Co.

Exhibit 202 is The Toledo Grocer, The Dow & Snell Co., under date of February 29, 1908, page 13, under general column of "Syrup" is quoted the prices of Karo Corn Syrup in its different packages.

Here is a later publication also from McCord-Brady Co. of Omaha under the date Spring 1908.

Exhibit 203 we offer, being the wholesale and retail price list of Wm. Steinmeyer Company, Milwaukee, under date of June 1st, 1908, page 4 under the head of "Syrups and Molasses" is the Kairo-mel Corn Syrup, in parenthesis after it "Table Syrup", quotes the prices in 2 1-lb. cans, 5, 10 and 20 1-lb. cans.

Here is another price list of C. S. Morey Mercantile Company for 1908, also quoting on page 32 the price of "Corn Syrup" in its various containers; barrels, half-barrels, etc.

Exhibit 204 is a Grocers' Bulletin published monthly by Louisville Grocery Company of Louisville, Kentucky, under date 598 of June 1st, 1908.

Exhibit 205 is The Scudders-Gale Grocer-Co.'s price list dated June 4, 1908, St. Louis. On page 13 under the head of "Corn Syrup"—but it reads "Economy Sugar Drips—Corn Syrup", quotes the price of that article in different kinds of containers and then specifically, "No. 40 Corn Syrup, light color, .29, No. 35 Corn Syrup, medium dark, .29".

Here are subsequent quotations from Winston, Harper, Fisher Co. in June 1908, and also of MacDonald in June 1908.

Exhibit 206 is W. M. Hoyt Company's price list, June 8, 1908. Page 51 of that price list, under the column headed "Syrups" is "Corn Syrups in wood packages", quotes the price, then, "Extra Corn, light color, good body, nice flavor, one of the best sellers we have", prices quoted in barrels, half-barrels, and jacket cans".

Exhibit 207 is current prices of John Orr's Sons, wholesale grocers, Steubenville, Ohio, and on page 11 under head of "Syrups" quotes "Karo Corn Syrup" in 2 lb. cans, 2 dozen in a case.

Exhibit 208 is the Twin City Commercial Bulletin of June 20, 1908, Minneapolis, under the head of "Syrups and Molasses" refers to the condition of the market on "Corn Syrup."

Q. I show you, doctor, Exhibit 209, and ask you what that is and, if you know, the standing of that publication?

A. This is the American Grocer, issued August 5th, 1908, it is published by Mr. Barrett of New York, and considered the leading paper in the United States devoted to the wholesale grocery trade. It doesn't refer to "corn syrups."

Mr. FAIRCHILD: Under the head of "Glucose", under date of August 5th, 1908, there is "Quotations for Carload Lots"; it gives "Glucose, 42 deg. crystal. 2.73; 43 deg. crystal, 2.78; and 44 deg. crystal."

Then below that is "Mixtures", "Mixed Syrup". Then in the same journal a week later, August 12, 1908, on page 36, under the column "Corn Syrup" is "Quotations for Carload Lots", then comes "Glucose 42 deg. crystal", just the same as before, then under that "Mixtures", "Mixed Syrup" (Issue of Aug. 12th marked Exhibit 211).

Exhibit 210 is The Inland Grocer, published at Cleveland and Chicago, September 26, 1908, under the head of "Syrups" on page 27 is "Extra Corn", prices quoted in barrels, half-barrels, and 5 and 10 gallon kegs and cases, 2½ lb., 5, 10 and 20 lb. cans.

Q. Do you know the attitude of the state food departments of the different states, or a number of them, on the subject of the name of this article "Corn Syrup."

Objected to as incompetent and immaterial.

Court: How is that material?

Mr. FAIRCHILD: Well, in the case from Michigan the supreme court seems to think that it is a matter to be considered, and they state in that case—they refer to that fact which is stated by counsel, they say, but which they haven't had the opportunity themselves to investigate (so that they would take judicial knowledge of it) and it is simply material to show the general recognition of this name by the food departments of other states, simply to show, as I am endeavoring to show, not only the publicity, but the general recognition of the name as a proper name applied to this article. They refer to that in this opinion here as of some significance in regard to the general recognition of the article. Of course our position will

600 be that if this is an article which does not deceive as to its name, then the state has no right to forbid its citizens its use. And as going to show the general recognition of the name, as well as the publicity of it, the notoriety of it, the public knowledge of it, common knowledge, its acceptance by the food departments of the other states of the Union under food laws.

(After discussion and argument the question was withdrawn by defendant's counsel.)

Cross-examination by Mr. OLIN:

Q. I will ask you first, doctor, a few questions as to your connection with this business. You by profession and training are a chemist, are you not?

A. I made a study of natural sciences in general, engineering, particularly chemistry.

Q. Are you a graduate from some institution?

A. I am.

Q. What institution?

A. University of Wurtzburg, Germany.

Q. And you have devoted yourself to what particular line in chemistry?

A. Applied chemistry and the study of food chemistry.

Q. Has that been true since you have been connected with the Corn Products Company or its predecessor?

A. Oh yes, naturally.

Q. Now I think you said you were a director of the company?

A. I was.

Q. Are you now?

A. I am not.

Q. That is you were one of the directors of the Sugar Refining Company?

601 A. No, of the Corn Products Company.

Q. Of the present name?

A. The Corn Products Company and of the Corn Products Manufacturing Company both.

Q. It was the Corn Products Manufacturing Company I think that you said gathered in these other companies you named in August 1897?

A. I have no personal information. I don't think I used that expression.

Q. Well, you named the companies?

A. Yes—

Q. Bought up?

A. Well, negotiations of some kind. I am not familiar with the detail of that.

Q. Now when was it that the Corn Products Refining Company—is that the name now?

A. Yes sir.

Q. When was it that that name came into existence?

A. In the spring of 1906.

Q. Did that become the owner of all these preceding companies?

A. Practically so, yes.

Q. And as you understand did it purchase from the Corn Products Company or Corn Products Manufacturing Company?

A. Purchase?

Q. Yes, all these plants.

A. No, I don't think so. It was an arrangement among stockholders. It was an exchange of stock into the Corn Company.

Q. All the parties that were interested in the old company became interested in the new?

A. Yes, by an exchange of stock.

602 Q. So it was really the successor to the other company?

A. In a practical way, yes.

Q. Have these various branches under these different names continued to do business under their separate names?

A. No sir.

Q. Is it all now conducted under one name?

A. Yes.

Q. And at all the different plants?

A. Oh, yes, all under one head.

Q. So that the plant out at Davenport, Iowa, don't any longer send out goods under the name of the Corn Products Company?

A. No sir, it is all Corn Products Refining Company.

Q. Or Davenport Refining Company?

A. No sir.

Q. It is all Corn Products Refining Company now?

A. They may use their label on it, but there is a stamp on it with the name of the successor too.

Q. That has been done?

A. Yes sir.

Q. Now does the present company control, or comprise rather, I will put it that way, all of the companies or plants that are manufacturing glucose in this country?

A. No, not by any means.

Q. How is it with reference to this middle west section, including Illinois, Michigan, Ohio, Indiana, Iowa, Nebraska and Wisconsin—Are there any other companies doing business?

A. That's where most of the others do business.

Q. Will you name some of them, doctor?

A. There is the American Maize Products Company.

Q. Where is that located?

603 A. They are located in Chicago and their plant is located outside of Chicago at Roby, Indiana. There is the Edinburg Starch & Refining Company out in Edinburg, Iowa. The Clinton Sugar Refining Company at Clinton, Iowa. There is the Hubinger Brothers at Keokuk, Iowa; I don't know what the name of the company is; I believe it is Hubinger Brothers.

Q. Are those small or large concerns?

A. Large concerns. There may be some more starch factories.

Q. Do you know what the capitalization of the present company is?

Mr. FAIRCHILD: I object to that as immaterial, not addressed to any issue in this case.

Objection sustained.

Q. Who is the president of the company, the present company?

A. The Corn Products Refining Company?

Q. Yes.

A. Mr. E. T. Bedford.

Q. Is he the same Mr. Bedford whose name appears in the proceedings at Washington?

A. Yes sir.

Q. On the hearing?

A. On the hearing, yes sir.

Q. And where is the main office of the company?

A. New York City.

Q. At what place?

A. 26 Broadway.

Q. They also have an office at Chicago?

A. Yes sir.

Q. How many branch establishments has the concern now—as many as when it purchased or reorganized in 1906?

Objected to as immaterial.

604 Mr. OLIN: I wanted to find out whether all of these he named on direct examination were continuing.

Objection overruled.

Exception by defendant.

A. Part of the old factories are still operating; others have been put out of commission and replaced by modern works.

Q. Can you state the number that there are now?

A. Oh yes.

Q. How many?

A. I would have to count them. Edgewater, New York; Waukegan has got two; Davenport; Pekin, Ill. Granite City; Chicago; Seven glucose factories.

Q. Are there other factories besides those?

A. No.

Q. You speak of so many glucose factories. Is there a factory that is different?

A. I mean to say that some of those glucose factories manufacture starch. They all make glucose, but they make other things, some of them.

Q. They all make glucose, but they may make other things?

A. Yes, they may make other things out of corn.

Q. Are you a stockholder of the present company, doctor?

A. I am.

Q. Just what is your position? I mean have you any other than you have stated? Are you in any official position?

A. I have none at the present. If I am supposed to answer that I would have to go back a little farther.

Q. Well, I don't quite understand that.

A. I am not the chemist of the company, if that is the point you want.

605 Q. You are not the chemist of the company?

A. No.

Q. Well, have you any official position now?

A. I believe my position is well known to the management. I have no official title. We don't carry titles.

Q. And you have no objection to stating it?

A. No, indeed not. My principal work is the extension of our business both in a manufacturing way and in a commercial way, that is, developing new markets for our products, developing new products. I assist generally in the manufacture of our products. I am consulted in a great many matters.

Q. And are familiar with the business and have been for the last ten years?

A. Yes sir.

Q. Are you familiar with a book that I show you entitled "Statistics of the Glucose Industry"?

A. I have seen it before and I have read it.

Q. Did you have anything to do with the preparation of it?

A. No sir, as the date shows, that was printed before I entered the company, about a half a year before.

Q. April, 1898?

A. I entered the company October 17, 1898.

Q. That was gotten out by the Glucose Sugar Refining Company, wasn't it?

Mr. FAIRCHILD: If you know.

A. It says though, compiled by the Glucose Sugar Refining Company.

Mr. FAIRCHILD: That isn't the question asked you. He asked you if you knew.

A. I don't know by whom it is gotten up.

Q. Isn't that one of the companies that went into this combination or organization in 1897?

606 A. No, this is the result of the combination.

Q. This is the result of the combination?

A. Yes, this is the parent company.

Q. And you went to work for that company soon afterwards?

A. About a half a year after this.

Q. Now, you are familiar with the pamphlet?

A. I have seen the pamphlet and read it.

Q. And you know what is in it?

A. I don't know, I was surprised yesterday when you read it. I had forgotten it entirely.

Q. You were familiar with it at the time?

A. Not very well. I was not interested in it.

Q. Now, I think you said that you had known of this article being sold under the name of corn syrup for how many years?

A. I said to my own knowledge since 1900 at least.

Q. You never had heard of it before that or didn't know of it?

A. Well, I think I had, yes.

Q. Do you know whether or not that term is recognized anywhere in that compilation by that company at that time?

A. I couldn't say without consulting the pamphlet.

Q. That was gotten out, was it not, to oppose a proposed tax bill?

A. That was the point I was just speaking about, I didn't know that, what the object really was, until you mentioned — yesterday. I had forgotten that entirely.

Q. It purports to be signed, does it not, by this company, the Glucose Sugar Refining Company, on page 6?

A. Yes sir.

Q. And that is the company you commenced to work for soon afterwards?

A. Yes sir.

Mr. OLIN: We offer in evidence the last paragraph of that publication.

607 Mr. FAIRCHILD: I object to this for two reasons, it doesn't bind this defendant or attempt to bind this defendant, not shown in any way connected with any person in interest in this case, and the contents of it are immaterial.

Objection sustained.

Q. Do I understand from your testimony, Dr. Wagner, that you claim there is any difference between the starch out of which this glucose is manufactured, and any other starch?

A. Why, most decidedly.

Q. Have you always entertained that view?

A. Why, I have.

Q. On page one of this same pamphlet is there a statement here as to the starch that is manufactured by that company, the parent company?

A. There is quite a little said about starch, and I don't agree with the statement made here, that there is no difference between corn starch and any other starch.

Q. Well, that was an authoritative statement put out by the parent company in 1898?

A. I don't know anything about it.

Objected to as immaterial.

Court: The answer may stand.

Exception by defendant.

Q. Read the statement as to starch.

Mr. FAIRCHILD: I object to the reading of this into the record as incompetent and immaterial. It doesn't show, as I said before, that it binds any defendant in this record or has any bearing in the case.

Objection sustained.

Q. Now, doctor, I wish you would just take and glance at that and turn the pages over and see what names purport there to be the officials of this company and who the petition was signed by, 608 and the statements and letters that I think you will find there.

A. Why, first comes a copy of an address before the Ways and Means Committee, "Glucose Sugar Refining Company" without any signature of any individual. Then comes a statement, "Copy of Petition Signed by One hundred thousand Prominent Individuals and Firms to the Committee on Ways and Means, Hon. Nelson Dingley, Chairman, Washington, D. C." It is signed by Mr. P. D. Armour of Chicago.

Q. Yes, and others.

A. And others; some of them I know personally, some of them I don't know. Then comes a Copy of Affidavits by Experienced Men in the Glucose Industry signed by C. H. Matthiessen.

Q. Who was C. H. Matthiessen?

A. He was the President of the Glucose Sugar Refining Company.

Q. And was at that time?

A. I don't know.

Q. When you were employed?

A. Then he was.

Q. I say he was at the time you were employed, wasn't he?

A. Yes sir.

Q. See if it isn't signed as president?

A. Yes.

Q. And he is the gentleman who was president when you were employed by the company?

A. Yes sir.

Q. See if there are not other officers there.

A. Affidavit of F. O. Matthiessen.

Q. Who was he?

A. I understand that he was the uncle of Mr. C. H. Matthiessen.

Q. Was he connected with the company?

A. I don't think so, at least not actively. I never knew the gentleman. Then it says: "This affidavit has been attested to by the following gentlemen, who have had a great number of years
609 of practical experience——"

Q. You needn't read that.

Mr. FAIRCHILD: Is there a signature there?

A. No sir.

Mr. FAIRCHILD: What you find there is printed?

A. Yes.

Q. Well, do you say Matthiessen's signature isn't there?

A. I say it is printed.

Q. I don't claim that they are original signatures, but copies of them. Turn on, if you will, doctor, and see what the rest of it is.

A. Affidavits attested to by employes in glucose refineries. Then there are the names of a number of men. Statement by Dr. Arno Behr. Statement by John L. Fuelling, Chemist.

Q. Different Statements there as to this product?

A. Well, that I don't know. Statement of Henry C. Humphrey, Chemist.

Q. Do you know who he is?

A. I didn't know him at that time.

Q. He wasn't connected with the company?

A. No. And there is a statement of Dr. Edward Gudeman, Chemist. Statement or affidavit by August Wedderburn. Then follows copies of letters on the subject of Flourine by Dr. J. B. Murphy. Letter by W. J. Butler, M. D. Letters from Magnus Swenson. Letter from Dr. J. M. Dodson. Letter from W. E. Davenport. Report on Grape Sugar by the National Academy of Sciences. Copy of report from Dr. Cyrus Edson, commissioner of health of the state of New York, to Thomas F. Gilroy, Mayor of New York City. Letters from professors and doctors Barker, Gibbs, Remsen, Cyrus Edson reaffirming their reports to the National Academy of Sciences. What is Glucose or Grape Sugar by Peter T. Austin, Ph. D.

Q. You are quite familiar with the argument or brief, or
610 whatever you may call it, that Dr. Wiley filed in this hearing at Washington?

A. I read it once. I am familiar with it to that extent.

Q. It takes the opposite view of what you take?

Objected to.

Q. Now, do you know, do you not, that Dr. Wiley calls particular attention to this pamphlet called Statistics of the Glucose Industry, quotes from it, and in other ways seeks to show that at this time there was no claim made that there was such an article put out as corn syrup.

Mr. FAIRCHILD: I object to that, as incompetent, attempting to get into the record Mr. Wiley's brief by questioning this witness.

Mr. OLIN: No, not at all. My object was to show that this witness must have been familiar with this document, he had interest enough in this matter after having at least his attention called in that way by Dr. Wiley to have, it seems to me, remembered it and know something about it.

Objection sustained.

Q. Well, do you recall that Dr. Wiley called special attention to this document?

A. I hardly think that I recall that he called special attention to that, but I know that he mentioned it.

Q. Are you familiar with that part of his argument which is based on this pamphlet?

A. I wish to state that I am not familiar at all with Dr. Wiley's arguments. I have never read them carefully enough. I stated that I read it—I wish to correct that now and state that I glanced over it, to that extent only have I read his brief; I have not studied it in any degree.

Q. Well, on looking this pamphlet through, does it not refresh
611 your recollection, doctor, as to what it contains and the position taken by the Glucose Refining Company as to this article at that time?

A. As I have stated before, even now, although you have handed it to me, I don't know what the object was in preparing this statement. I do remember from the contents that the question of purity or wholesomeness of glucose plays a role in there.

Q. Do you claim at this date, 1898, any of the concerns engaged in manufacturing glucose were putting out any of their products under the name of corn syrup?

A. Oh, I am sure of that, that the statement has been made to me, come to me in the regular line of business.

Q. That these concerns that were manufacturing glucose, some of these concerns at least, were manufacturing corn syrup and selling it as such?

A. I think I heard that within three months from the date I entered the business.

Q. You have no personal knowledge about it?

A. That they did it?

Q. Yes.

A. I wouldn't like to state it under oath, because I may have seen the packages and I may not be sure about the date.

Mr. OLIN: We now renew our question and offer the statement as page 1 of this pamphlet on this question of the nature of corn starch, the statement put out at that time by this parent company.

Mr. FAIRCHILD: I object to that as incompetent, irrelevant and immaterial. It can't bind the defendant in this suit and there is no showing that it emanated from the company that it purports to, and even if it had emanated from that company it wouldn't be material in the case, nor would it bind the succeeding company in a litigation like this.

Objection sustained.

612 Q. This Glucose Sugar Refining Company was located at that time at Chicago, Illinois?

A. Yes, they had offices in Chicago.

Q. And this Mr. Matthiessen, whose name you find here purporting to be president, was president of it?

A. At the time I entered the business, yes. The annual election, as I remember it took place August 7th, or the first Tuesday in August, I believe, so he may have been president only since the first Tuesday in August so far as I know.

(Question renewed.)

Same objection.

Objection sustained.

Q. What was Thomas Gaunt, was he general superintendent of the Glucose Sugar Refining Company at that time?

A. That's in April.

Q. The 21st day of March, 1908?

A. He may have been, I have no personal knowledge. Gaunt was not with the company when I entered. I succeeded to his position later on.

Q. Was Mr. S. T. Butler president and secretary of the Glucose Sugar Refining Company?

A. I don't think he was at the time I entered the business. I am sure he was not.

Q. Wasn't he connected with the company?

A. He was.

Q. Well, now, just glance at that and see if it refreshes your recollection?

A. Yes, I do remember the name.

Q. No, but read what is stated there. You needn't read it out loud.

Q. He has been connected with the company thirteen
613 years. I recognize every one of these names.

Q. It states his official connection?

A. At that time. But at the time I knew him he wasn't secretary and treasurer of the company.

Q. Do you know Mr. B. F. Rhodehamel?

A. Yes.

Q. Was he connected with the company?

A. I think he was connected with the company when I entered the business, in a sales capacity.

Q. And continued, didn't he?

A. No sir.

Q. Do you know Mr. Lee S. Harrison, Superintendent?

A. I did know him. I am sorry to say he died.

Q. He was connected with the company, wasn't he?

A. Yes sir.

Q. Superintendent, wasn't he, of the Glucose Sugar Refining Company of Davenport?

A. Yes sir.

Q. And had been connected with the company some fourteen years?

A. I don't know.

Q. A long time, hadn't he?

A. He had been in the business a long time, connected with a good many companies.

Q. Just glance at page 17?

A. Well, that bears that out.

Q. It states, doesn't it, the places where he had been superintendent?

A. It states that he had been connected with only one firm, the American Glucose Company, different branches of the American Glucose Company and the Peoria.

Q. And have you any doubt, after looking at that, that that
614 was put out by the Glucose Sugar Refining Company?

Objected to.

Objection sustained.

Q. Don't you know that it was?

A. I don't know anything about the history of the pamphlet, nothing whatsoever.

Q. Don't you know that it was put out about that time?

A. I don't know anything about the issuance of this pamphlet, what led to it, by whose directions, or who was connected with it.

Q. Wasn't it produced at Washington at the hearing there?

A. I don't know. It may have been quoted from, I don't know. I have no recollection of it whatever. It was not mentioned in my own brief so far as I can recollect.

Mr. OLIN: Well, I don't think I can make any more proofs than that of it. I didn't suppose of course that it would be questioned. I thought it might be objected to on some other grounds, but I didn't suppose it would be on that ground.

Q. Now, Dr. Wagner, I think you said that you were present at the hearing at Washington that began on December 5, 1907. Could you state how long that hearing continued?

A. Part of the day, as I remember it.

Q. That was before, I suppose, the secretary of agriculture?

A. Yes sir.

Q. The other secretaries, Cortelyou and Strauss, were not there?

A. No sir.

Q. Took no part in it?

A. No sir.

Q. As far as you know they never took any part in it, did they, actively?

Objected to as not cross examination.

(Question withdrawn.)

615 Q. Now, soon after that matter was submitted, did your Company, the Corn Products Refining Company, send out a circular letter such as I show you, marked for identification 212?

A. I have no knowledge of it.

Q. You have no knowledge of it?

A. No sir.

Q. Did you yourself send out any such letter as that?

A. I don't know. Not to my knowledge.

Q. Well, I will put it in another form. About that time did you, acting for the company, secure, or were you instrumental in securing resolutions to be adopted by various boards of trade and other bodies for the purpose of having that sent either to the members of congress to be laid before the secretary of agriculture, or directly to the secretary of agriculture, bearing on this question that was then pending before him?

A. I submitted the matter to a number of boards of trade, asked them if they were in harmony with our contention to take an active part in trying to convince the authorities at Washington that we were in the right.

Q. Didn't you also, especially in Iowa, get parties to have the senators in that state, Dolliver and Allison, and other officials, members of congress, write letters favoring your contention?

Objected to as not cross-examination.

Objection overruled.

Exception by defendant.

Q. Did I address the gentleman you just mentioned?

Q. Were you instrumental in securing letters or opinions or communications—

A. Well, I have answered that I was, yes.

Q. And you carried on, did you not, a very vigorous campaign there for quite a while after the hearing at Washington and before the decision was announced?

616 A. Well, I don't know whether you would call it vigorous. It was practically I alone that did it.

Q. I wish you would get a copy, if you will, Dr. Wagner, of the so-called brief of Dr. Wiley. I wish to call your attention to certain things that appear in that. There is a heading, is there not, in that brief entitled "Opinions of Eminent Men, not experts, of Boards of Trade and of Other Bodies."

A. What page is that?

Q. It is my paging, it may not correspond with yours, 151, but that is the heading?

A. Yes sir.

Q. On that page, just to call your attention to it, do you remember of securing a brief from William M. Calder, member of Congress?

A. I do not.

Q. That was sent to the White House and then forwarded from that source to the secretary?

A. I do not.

Q. Don't remember of securing that?

A. No sir. In fact, I did not secure it.

Q. Was there a brief prepared by Mr. H. N. McKinney, who appeared here as a witness, on the subject?

A. I have no knowledge of that.

Q. And submitted. Do you have knowledge of the report from the Davenport Commercial Club under date of December 6, 1907, referred to the bottom of the page there. Did you secure that?

Objected to as incompetent, and immaterial and not cross-examination.

Objection sustained as not cross-examination.

Mr. OLIN: I will then make Dr. Wagner our own witness.

Q. Now, doctor, do you remember having anything to do with securing the report from the Davenport Commercial Club?

617 Objected to as immaterial.

Objection sustained.

Q. Do you know, doctor, about the weight of a gallon of maple syrup?

A. I do not.

Q. Or sorghum syrup or cane syrup?

A. That would largely depend upon the gravity of the syrup.

Q. No, but as it is usually sold on the market.

A. I have seen all gravities.

Q. Isn't it about eleven pounds to the gallon?

A. Well, Glucose is about that weight, yes.

Q. Well, very well, I should have put it that way perhaps.

A. I think they are all about the same any way.

Q. Can you turn, doctor, to the heading in the so-called Wiley brief entitled "The Michigan Supreme Court".

A. Yes, I have that.

Q. Turn to the top of page 92, it is the second page of that decision. I will ask you first if you testified as a witness at that hearing?

A. In Michigan?

Q. No, at Washington.

A. Yes, as a witness?

Q. Yes.

A. Which hearing is that, December 5th?

Q. At Washington.

A. You know there were two hearings. There was one on September 28th, which was the official hearing before the board of food and drug inspection.

Q. I think this was on December 5th?

A. It was more of an informal character. I made my statement there yes.

Q. Well, did you make a statement there as follows: "Do you consider the term corn syrup a satisfactory name for glucose
618 plus a certain percentage of refiners' syrup"? And did you answer: "I do not consider it a satisfactory term for that as much as I would for glucose alone."

A. Of course that is not correctly given. I may have said, and I believe I did say, "I do not consider it as satisfactory a term for that as I would for glucose alone."

Q. Well, wasn't this taken down by a competent stenographer?

A. Well, there are a good many errors I have seen in the short time I have looked it over.

Q. Did Mr. Dunlop put to you the further question: "But you would not consider 'corn syrup' a satisfactory term for glucose plus a percentage of refiners' syrup"? And did you answer "No."

A. I made that answer and that was given in view of the recent action of food standards committees and their position on the matter, as well as legislation.

Q. That was your answer at that time?

A. It was.

Q. That you didn't consider "corn syrup" as a satisfactory term for glucose plus a percentage of refiners' syrup?

A. I didn't say I didn't consider it—I said "not as satisfactory."

Q. Does the record show any such modification as that?

A. Oh, I think it states what I said now, I could quote verbatim; "I do not consider it a satisfactory term for that as much as I would for glucose alone."

Q. Now, that is one answer, now, my other was the question put you by Dr. Dunlop: "But you would not consider 'corn syrup' a satisfactory term for glucose plus a percentage of refiners' syrup" and didn't you answer "No."

A. I am decidedly under the impression that I was asked: "But would you not consider 'corn syrup' as satisfactory a term for glucose"?

619 Q. Well, the record as quoted there by Dr. Wiley is just as I read, isn't it?

A. It's just as you read it, yes. There is no great difference.

Q. Well, you don't wish to say that you didn't state it just as it is stated there on that page.

A. I am stating that I am inclined to believe that the word "as" was there where the word "a" is now. I don't believe it makes much difference in the whole. I wish to make a statement, if I may, your honor, in this connection. I have never been given an opportunity to see any copy of that, or the correction could have been made. It says, "Dr. Dunlop asks Dr. Wagner," page 39 of the hearing. The language employed here is not English that is credited to me.

Q. I am not saying that you had an opportunity to read it, but it was simply taken down by a stenographer and written out afterwards?

A. But it is not English.

Q. Well, I imagine perhaps a good many of my questions here in this trial wouldn't be good English.

Q. Do you know, doctor, what the fact is as to whether glucose, as a syrup in any form, is used to any great extent in Germany?

A. Germany is not a syrup consuming country.

Q. They substitute for the syrup largely honey, don't they?

A. I don't know. I think jams and other sweets are eaten mostly. I spent my boyhood in Germany, so I have a very good recollection. I am obliged to base my information upon a period that's about twenty years ago. I left Germany when I left college, about seventeen years ago.

Q. If they have table syrup it is of the cane syrup, something in that direction, isn't it?

A. I think it would be in the nature of refiners' syrup, refinery syrup.

620 Q. Well, I will pass that just for the present and come back to it in a moment. I refer now to Exhibit 130, the trade mark for the word "Karo." You are familiar with that?

A. I am.

Q. And had to do with the getting of it up, I believe?

A. No sir.

Q. That states, doesn't it, in the declaration: "A class of merchandise to which this trade mark is appropriated is groceries, and a particular description of things comprised in said class upon which the said trade mark is used is syrup."

A. That's approximately the language, as I remember it.

Q. You understand, do you not, that it is nowhere connected with the word "corn"?

A. No, not in the trade mark specification. It was not necessary.

Q. And in the declaration there appears this, that "The trade mark is used by said corporation in commerce between the United States and foreign nations or Indian tribes, and particularly with Germany." (Shown witness.)

A. I assume that that is true.

Q. Now, as a matter of fact, was your company at that time or prior to that time doing any export business whatever with Germany in any kind of a syrup?

Objected to as improper cross-examination and as immaterial.
Objection sustained.

Mr. OLIN: Then I will make him my own witness on this and I will change the form of the question.

Q. Can you tell us what the fact is as to the exporting at this time or any time prior thereto by your company of syrup to Germany?

A. I have no knowledge of our exports to Germany. I know that we are doing a large export business with that country, but it is not within my province to keep in touch with it so as to
621 know the details of our business.

Q. Well, state what the fact is as to whether that export business is confined to glucose?

A. Not at all, sir.

Q. Well, is largely glucose?

A. Very little glucose, in fact hardly any glucose.

Q. Well, is it the sugar, starch-sugar?

A. Starch sugar is sold some.

Q. Do you wish to state, or is it the fact that the export business you do or were doing at that time with Germany consisted in any respect of these mixed syrups?

A. I know that we have always been exporting mixed syrup.

Q. To Germany?

A. To European countries—

Q. No, Germany?

A. In general, I have no detailed knowledge.

Q. Would your Mr. Smith know?

A. I don't know, this was before his time. But the statement has been sworn to by an officer of the *country*, so I take it it is true.

Mr. OLIN: I move that that last be stricken out

Court: From "but the statement has been sworn to" may be stricken out.

Exception by defendants.

Q. Among the various price-lists that were shown you this morning there was one of the A. MacDonald Company, page 25, which gives among other descriptions of corn syrup, 2 lb. tins Crown and Bee Hive Syrup. Was that a syrup that your company was putting out?

A. No sir. It is plainly not our syrup, because it is not called corn syrup. It is Crown and Bee Hive Syrup. It must be entirely distinct from any of our syrups.

Q. You never put out a Bee Hive Syrup?

622 A. Not to my knowledge, no sir.

Q. I notice in a number of these invoices or price-lists that were introduced this morning the article is referred to in the form of barrels, under the term corn syrup.

A. Yes sir.

Q. Now, do you know whether prior to the decision of the secretary that that was billed out or branded in barrels as "corn syrup" or "glucose"?

A. You the speaking of the unmixed article I presume?

Q. Well, take the unmixed article first.

A. I would say up to that time it was shipped out generally as "glucose," it being the unmixed article, although we have sent out before that the article as "corn syrup."

Q. But generally, as you say, it was sent out as glucose?

A. Yes, to the trade, and the trade only, meaning manufacturers when I employ the name trade.

Q. And where it appears here in the form of barrels under the other name, it is the mixed article—where it appears in barrels under the name of corn syrup?

A. I would like to see that invoice.

Q. Well, these price-lists.

A. Price-lists you say?

Q. Where it appears I say in these price-lists under the name of corn syrup in barrels it is the mixed article?

A. If it appears under the head of "Syrups," yes.

Q. Now, I think all of those price-lists were lists of syrups, were they not?

A. Well, they speak for themselves. They show it in most instances.

Q. You introduced a statement from two issues of the American Grocer, which I think you said was the leading paper of that class in the United States?

623 A. I made that statement.

Q. And that is the fact, is it?

A. So far as I know, yes.

Q. Well, that's your judgment.

A. It is my understanding.

Q. Under the date of August 5, 1908, that paper at page 36, starting out in that first column gives "molasses," doesn't it, and then "sugar syrup" and then "glucose"?

A. That is correct.

Q. And under that are "quotations for carload lots"?

A. Yes sir.

Q. And then for certain grades and mixtures?

A. And mixed syrups.

Q. All under the general head of "Glucose."

A. Of "Glucose."

Q. The next issue of that paper changed that, it seems, didn't it, and had a separate heading of "Corn Syrup"?

A. Yes sir.

Q. Then under that "quotations for carload lots."

A. The balance is I believe about the same as the other.

Q. No, let us see. Notwithstanding the term corn syrup put in on the top there, they do, do they not, put over the different grades here of the article the word "Glucose"?

A. Yes, this being a trade paper.

Q. Now, do you know how it came that in the next issue of that paper that addition was made of "Corn Syrup"?

— No sir.

Q. Of all the papers that you introduced here that is the only one, isn't it, which indicates that the article they are really advertising for sale is glucose?

A. There is a marked difference in this paper and the price-lists quoted. This is a trade paper, giving the quotations on
624 articles of commerce known to the trade. The others are articles known to the consumer and intended for the consumer. There is a difference between glucose in bulk and corn syrup in cans.

Q. Do you say that all these other lists of wholesalers, etc., were to inform the consumer?

A. No, the product that they quote is intended for the consumer. The other paper is not a price-list, the American Grocer.

Q. But the product they quote is intended to be sold to the retailer?

A. Yes, to the retailer and through him to the consumer.

Q. And they indicate merely to the retailer the name of the article?

A. They indicate to the retailer the name under which he sells the product to the consumer.

Q. Do they?

A. They do.

Q. Do you wish to say, doctor, that these price-lists as given indicate the brand that is upon the article in all of the cases as it is sold by the retailer to the consumer?

A. It is given largely in an abbreviated form.

Q. Or is it merely to indicate the brand as sold by the wholesaler to the retailer?

A. Every retailer knows that when the wholesaler quotes him Karo that that means only one product, Karo Corn Syrup, and nothing else.

Q. Now, let us keep away from Karo just for the present and take these other brands, some of them. I think that some of these price lists speak of it as Crystal Drips—do you remember?

A. I don't remember that. I hardly think that would apply to a corn syrup.

Q. Well, they were given under the general name or heading, as I remember, of—

A. Syrup.

625 Q. Corn syrup?

A. I don't recollect having seen it.

Q. Here is one that I remember at page 999, we have, have we not, "Syrups" and then under that Diamond Drips?

A. It also says "Best corn goods".

Q. Yes, I am coming to that. Then after Diamond Drips it puts in parenthesis, doesn't it, "Best corn goods".

A. Yes sir.

Q. Now, do you know when that article went out to the retailer

whether it was branded merely "Diamond Drips" and there was not on it at all anything about "corn goods"?

A. That just bears out my statement that I made before. I have not seen the label, but I am quite sure that the label reads "Diamond Drips Corn Syrup". It is sufficient for the retailer to know Diamond Drips, he knows exactly what it is.

Q. Wasn't it the fact that those goods went out at that time before the statutes were passed in the different states under this taking name of Diamond Drips, leaving off entirely the term corn syrup?

A. That would be pure guess work if I want to make an answer to that.

Q. Well, you know, don't you, that there were a great many of these articles being put out and sold under the name of Diamond Drips or Fancy Drips or Crystal Drips or Pride Sorghum or Table Syrup?

A. Not by any of the companies I am connected with.

Q. Well, other companies?

A. I have no knowledge of their business.

Q. You didn't mean to say that that was the sale of any article or giving the price of an article that you put out?

A. I could not tell from this anything at all, but I cannot see how that should in any way mislead anybody.

Mr. OLIN: I ask that that be struck out.

626 Motion granted.

Exception by defendant.

Q. I simply want to ask you, doctor, whether you can say in this case that this is an advertisement of the prices of any goods that your company put out?

A. I cannot; therefore, I don't know.

Q. Now, isn't that true of a large proportion of these price-lists that were introduced this morning?

A. On the contrary I find our brands right along.

Q. Well, you found your brands, but you found these brands?

A. Why, of course, we have no monopoly of the business.

Q. And as to those others you have no knowledge, have you, as to how the article that was ultimately sold by the retailer to the consumer was branded?

A. Brands outside of ours?

Q. Yes.

A. I have no knowledge of those.

Q. Will you turn again to Dr. Wiley's brief at page 137 under the head "The Consumer will not Buy Glucose Under that Name."

A. I have it.

Q. You heard, did you, Dr. Chandler's testimony there at Washington at that hearing?

A. Yes sir.

Q. There is quoted, is there not, at the bottom of page 138, what purports to be from his testimony?

A. Yes sir.

Q. Just read that, if you will?

Objected to as incompetent, and no foundation laid for impeachment.

COURT: Is it for the purpose of impeachment?

Mr. OLIN: Yes.

Objection sustained.

627 Q. Will you turn on a few pages, at page 141 of the same document there is in the middle of the page there a statement purporting to be from your testimony is there not?

A. Yes sir.

Q. I wish you would look it through and see whether you testified as there stated?

A. Well, I have no means of confirming that. My recollection is not fresh on the subject and this is not a certified copy. I don't even know whether this is a correct quotation of what actually took place at the hearing, nothing to show it.

Q. Would you state, doctor, the uses to which glucose is put besides being used in these mixtures for so-called syrup?

A. Why, it is used very largely in confectionery.

Q. And what other uses?

A. Oh, for food products of all kinds: Jams, jellies, preserves, marmalades. Those are the principal channels, I think, for us to dispose of our product in.

Q. Now, I want to ask you a few questions, it may not be cross-examination, but I think we will agree and clear up a few things here. We have the terms molasses, refiners' syrup and syrups I believe used here, doctor?

A. Yes sir.

Q. And sugar?

A. Yes sir.

Q. Now, I want to get before the court clearly the distinction first between molasses generally speaking and syrup, leaving out for the present this article you deal in. Just understand that.

A. Leave out the glucose?

A. Yes, this corn syrup, or any of these mixtures, but take the other syrups and you just understand that. You are not bound by my designation at all. Now, a syrup contains, doesn't it,

628 whether made from cane or from maple or from sorghum, all of the sweetness that is, all the sugar is in it?

A. Why, I would have to know what kind of a syrup it is.

Mr. FAIRCHILD: We have not put this witness on the stand as an expert, your honor. It isn't fair to attempt to turn him into an expert on some questions that we haven't gone into at all.

Mr. OLIN: There is no question but what Dr. Wagner can answer all these questions. I just want this for the benefit of the court and myself in this case.

A. I am willing to state my personal opinion if counsel is satisfied.

Mr. FAIRCHILD: All right.

Q. All the sweetness in the syrup?

A. Well, I would have to know what kind of syrup you are talking about.

Q. Unmixed, made from the juice of the cane or the sorghum or the maple tree?

A. You said before "and molasses".

A. No, take that first. The sweetness is all in that, there has been no sugar taken out?

A. I don't know that product.

Q. What, maple syrup?

A. Maple syrup I know, but you are speaking of cane.

Q. There used to be cane syrup.

A. Not of that kind. I have been employed in the sugar business in Louisiana, have made sugar, I have made molasses myself personally, I have been assistant manager of one of the largest sugar plantations of Louisiana, the Elmwood, and I have never known the product that you speak of nor do I know any person in Louisiana who makes that product.

Q. As cane syrup?

A. That makes any such product.

Q. They do make sorghum, do they?

629 A. I think that is made more in other states than in Louisiana.

Q. Now, going back to a question I touched on before, and that is this designation you now make of green starch. Have you ever before, either at Washington or elsewhere in your writing, and by the way, you have written a number of articles on this subject, have you not, on the manufacture of glucose?

A. I made addresses on several occasions.

Q. Have you attempted to make this distinction of what you now make of green starch and the purified variety?

A. Oh, yes, I made it in Washington last year for instance—very extensively—went into it in detail.

Q. You delivered a paper, did you not, before the National Association of State Dairy and Food Departments at Minneapolis in 1903?

A. St. Paul—yes sir.

Q. Will you read from that article, doctor, the paragraph first marked there "A" and then the paragraph marked "B".

A. Yes sir I will be glad to do it. "The corn bought by us is of the No. 2 and No. 3 quality. To remove impurities, stones, dirt, dust, iron, etc. it passes through cleaning and separating machinery, and it is then delivered to the steeping tanks, huge vats, wherein the corn is soaked in warm water. This treatment brings about a softening of the corn and facilitates the subsequent separation of the germ, which is effected after it has passed through a preliminary grinding whereby the corn is broken up and the germ set free. The balance of the material is now ground very finely in Buhr mill the coarser part, namely the bran, being separated by running the mass over silk sieves, while the starch liquor is concentrated and sent over slightly inclined planes, the starch tables, upon which by a process of settlement and washing the clean starch fills up in a

solid layer; the lighter ingredients, gluten, fiber, etc. are carried along in a current of water, over the end of the starch tables." That is A. "We have thus obtained, first, starch from the tables, 630 which represents the raw material of the corn starch and glucose manufacture."

Q. Just omit something there about byproducts, which is not material and read this paragraph over on the other side.

A. "Returning to starch, we saw same obtained in its raw state, which as I have said before, form the basis of gigantic industries; starch, glucose, grape sugar and corn syrups. Confining ourselves to starch for the present and following the process, we find that the raw starch is broken up, washed and syphoned repeatedly, run over refining sieves of fine silk, which remove the particles of fiber still adhering, and is finally delivered to the drying kilns, where the starch remains a certain length of time until its contents of water have been reduced to about ten per cent. Subsequently pulverized, we have corn starch in its highest purity, a purer product than which is not known".

Q. Now, the only difference, whether you use the starch for the purpose of making the commercial glucose, or whether you use it for the laundry purposes, or corn starch, as a starch, would be the question of impurities left in the green or raw starch, that would be the only difference, would it?

A. Why, the raw starch and the green starch is the same in both instances.

Q. And the difference between that and the laundry starch is that the first, the green or raw starch, isn't so pure?

A. Why of course, that is why we call it raw or green starch.

Q. That is the difference?

A. Why, no. Another very material difference, of course, I take it for granted that physically they are altogether different, the two products.

Q. How are they physically different?

A. Well, one is a milk as applied in a technical sense, and 631 the other is a dry product.

Q. Well, isn't it only that in the one the starch is suspended in water and in the other it isn't, it's dry?

A. That would seem to me to be a very material difference.

Q. Well, isn't that the only difference?

A. So far as applied to the starch it is proper, yes.

Q. And this suspended in the water isn't so pure, being in the raw condition as it is after it is purified and dried?

A. Why no, not at all. It can be just as pure whether it is in suspension or whether it is dry.

Q. I know, but as you make it for the purpose of this mixing glucose, the difference there is—

A. I would say if you saw the green starch first and then the finished starch you wouldn't think that those were the same products.

Q. I didn't ask you that. I am not expert on starch or glucose. I am asking you whether as a fact the only difference between the

article in its liquid suspended shape there and the dried article isn't the fact that the first has certain impurities in it?

A. Certainly, that is the main difference. I stated so.

Q. And in your process of manufacturing this unmixed glucose your aim is ultimately to get those impurities out, isn't it?

A. Of course.

Q. And when you get them out the starch is just as pure as the starch that is made for commerce and sold as starch?

A. There is no starch then.

Q. Well, the product comes from the starch that is in suspension, doesn't it?

A. The glucose?

Q. The glucose. The glucose comes from the starch that was in the suspended product?

A. Yes sir.

632 Q. And not from the impurities?

A. Why no. The starch of the corn is the raw material for both.

Q. Certainly, the starch that comes from the corn by the action of acid you mean?

A. I said the raw starch is the same in both instances, glucose or starch.

Q. You spoke, doctor, of the great amount of care used in the manufacture of this glucose product?

A. I did, yes sir.

Q. You think it is very great?

A. I think there is an exceedingly great amount of care involved in the manufacture of glucose.

Q. You regard it necessary to exercise that care, don't you?

A. I am speaking of the manufacturing processes.

Q. Yes, I understand.

A. Yes sir, to get a high grade product, the same as in sugar works.

Q. Do you test muriatic acid for arsenic in each case before using the same?

A. Why, we do more than that.

Q. Well you do that don't you?

A. We do that under all circumstances. We don't permit——

Q. Now, you answered my question. Do you test every carboy as it comes from the acid factory to your establishment?

A. We do not receive it in carboys.

Q. How do you receive it?

A. In tank cars, sealed.

Q. And you test it in the car?

A. We test it after it comes out of the car and before it goes into the works.

Q. And you regard all this precaution as necessary?

633 A. No, I don't consider it necessary at all. Our experience has shown that it is absolutely unnecessary.

Q. You do the unnecessary thing?

A. No, we are careful, that's all.

Q. But you are unnecessarily careful?

A. No sir. We simply want to be as careful as any other manufacturer would be in the manufacture of a food product.

Q. Well, you are not the only concern, as you said, that manufactures glucose?

A. Yes sir.

Q. There may be other firms that are not so careful as you are I suppose?

A. But we furnish the training school for the other institutions and those chemists have usually been with us for some time or another.

Q. They may not all be apt students?

A. It is only a matter of routine. It doesn't require a great amount of brains to make these tests.

Q. What would you say the purposes of a table syrup are? Well, to put it so that there will be no question about my meaning, is it for the sweetening and palatable part of the article that you have table syrup?

A. People I suppose expect something sweet.

Q. And something palatable?

A. And something palatable, yes.

Q. Having a flavor that will commend itself?

A. Not necessarily, not at all. Not at all.

Q. No flavoring?

A. No flavoring—not necessarily.

Q. Well, a taste then?

A. A sweet taste.

Q. It must be sweet. Well, do you mean to stop there?

634 A. Yes, I would stop there.

Q. Well, then would you have glycerin—that would do it?

A. Why no, no; there has got to be some sugar substance in it to make it sweet.

Q. Yes, you want sweetness and you want something that is palatable, pleasant to the taste, don't you?

A. Why, when I consider there are a great many straight sugar syrups sold, they have no flavor——

Q. I am not talking about these mixtures now.

A. I am not talking about these mixtures, I am talking about the straight sugar syrup as defined in these standards under number 5

Q. You know it has either sweetness or flavor, or both that you are after?

A. It has either sweetness or flavor, or both; that's right, yes sir.

Q. It is then for the purposes of a food product?

A. Oh yes of course it is.

Q. Well, if that was the main purpose then you might as well eat any amount of starch, either by itself or any starchy foods, for instance, potatoes, etc., containing an equal amount of solids that you find in the glucose?

A. No sir, raw starch is a very unwholesome article. The glucose is a predigested starch. That is what commends it to the use of the

public at large and the farmer who buys the corn syrup from us, he wants it as a food, he doesn't want it as a sweet, the boys out in the field in the summer time in harvest, they use it, they spread it on their bread, and the bread furnishes the balance of the other nutrients that are necessary to go into the human economy to sustain life; they require energy and energy producing foods, and that is a carbohydrate food, it is the ideal product for every one that particularly requires energy and heat.

Q. Are you through now?

635 A. With that sentence, yes.

Q. I didn't know but what you wanted to add a little to it. Do you wish now to state that a healthy person can not digest starch that is cooked and prepared as a food?

A. Oh, I was talking about raw starch.

Q. You thought I was going to turn the party loose on raw starch?

A. Well, you said that. You said starch. Starch is raw starch.

Q. Well, I said in the form of bread or potatoes, but you didn't hear that.

A. Well, a potato is not cooked.

Q. Well, do we usually eat them raw?

A. Well, I don't know about what you are eating.

Q. Well, we don't up here.

A. That is very commendable, I should say, from my point of view.

Q. I hand you here, doctor, the special reports of the census office, Part 1, 1905, and at page 138, and to call your attention to the subject "Glucose" and I call your attention to the first sentence there, and then I want to call your attention to what there is at the bottom. How does it define glucose, or state what it is there?

A. "Glucose: A thick syrup called glucose made from corn starch and the solid product called grape sugar obtained from the same source, are the most important products included in this classification."

Q. Now, at the bottom it states, doesn't it, the different items making up the product as manufactured, the different names and the value of each?

A. It says: "Each of the factories reported at the census of 1905 use corn as their principal material" and gives the various products and byproducts and the value of each, total \$24,506,932.

Q. Now, read those different items, the terms they use to
636 designate the product.

A. Glucose, grape sugar—

Q. The amount opposite glucose?

A. \$12,207,197; grape sugar, \$2,506,707; corn starch, \$4,176,141; gluten feed, \$3,736,242; corn oil \$1,288,233; all other products \$652,412.

Q. Now, they don't name at all "corn syrup" do they?

A. No, this being a book of statistics they employed the trade designation. They don't say anything of mixed syrups in here. I don't know whether that is included. I doubt it.

Q. They speak, do they not, at the top that "The thick syrup called glucose, made from corn starch, and the solid product called grape sugar, obtained from the same source, are the most important products included in this classification."

A. But there is no indication that they meant anything but corn starch and grape sugar. And I think they omitted a very important branch of our industry, not to include our mixed syrups.

Q. You think that is an important branch?

A. The mixed syrup part of our industry.

Q. Yes, you think the census in making a statement of the value of the products of the glucose manufacturers of the country omitted part of them?

A. I even question the accuracy of those figures. Of course it is hard to tell that at a glance, but I question the accuracy of those figures.

Q. Do you know whether the special attorney of the Corn Products Company appeared and made an argument and filed a brief at Washington before this hearing?

A. We have no special counsel. I suppose you refer to Judge Calhoun, Chicago?

Q. Yes, Judge Calhoun, he is the gentleman I have in mind.

637 A. Yes, he is our regular counsel, has been for years.

Q. I said special.

A. We have no special attorney. He is our regular attorney. I don't know whether he filed a brief with the department, come to think of it. He may have done so.

Q. This you recognize, don't you, Exhibit 213, as one of the brands of the famous Karo syrup?

A. I should say that this is the label—yes, this is our label that was gotten up I should say in the year 1903 to cover the requirements of the Michigan state law, and it meets the requirements of the state law of Michigan in every respect.

Q. That is put right around the can I suppose?

A. Yes sir.

Redirect examination:

Q. Is there any difference between this label and the one you use in Wisconsin?

A. The one we are using now in Wisconsin at the present moment?

Q. Yes, with the exception of "with cane flavor."

A. Well, the style of print is different and the label reads "Corn Syrup with Cane Flavor." The same information however is contained in one of the side panels on the label.

Q. I show you Exhibit 214, doctor, and ask you if that is an exhibit expressing in a form the processes gone through with from green starch to glucose, from green starch to corn starch, and from green starch to laundry starch?

A. This is a sketch which shows the steps which you mentioned

and the sketch which I made at your request regarding the manufacture of our products.

Mr. FAIRCHILD: We offer that in evidence.

Exhibit No. 214 is hereto attached and made a part hereof.

638 Recross-examination:

Q. If you should take, doctor, corn starch or laundry starch as shown at the bottom of the right-hand half of this Exhibit 214, and treat it, put it through the same stages or processes as are indicated on the left-hand side from green starch, you would end in glucose?

A. I don't think so.

Q. What would your product be?

A. I think we would get a jelly of the starch in the converter, which would render a further conversion absolutely impossible.

Q. Then all you would have to do would be to omit some of the processes, not take so many?

A. Oh, no, we would get stuck right in the first step.

Q. Then you can't make glucose any more out of laundry starch or corn starch, so-called?

A. I said if I——

Q. Can't you answer that question?

A. No, I can't answer it yes or no. I must qualify that.

Q. You can't answer it you say?

A. I can answer it I say.

Q. Can you answer it by yes or no, whether you can or can't?

A. It is one of those questions that you can't answer with yes or no. You said starch. You said that if I followed these steps as I indicated leading to laundry starch?

Q. I finally put the question whether or not you wished to say now that you couldn't make glucose out of either corn starch or laundry starch so-called.

A. There is no connection between this question of yours and the previous question.

Q. Please answer the questions as I put them. It isn't for you I think, doctor, to say whether there is a connection or not. I am putting that question now as to whether you wish to say you
639 can't (make) glucose out of either corn starch or laundry starch?

A. Laundry starch can be any starch, it need not be corn starch.

Q. I am talking about corn starch now.

A. As made by this process?

Q. No.

A. Then you will have to describe to me the process by which you make it, otherwise I can't answer the question.

Q. Do you mean to say that the corn starch, which is made just as pure as possible, as I understand the testimony, can't be taken today and through any process you know of be manufactured into glucose?

A. Certainly there would be a possibility of doing it, but it would be commercially absolutely impossible, on a commercial scale it would be ruinous.

Q. That would simply be because it would be too expensive?

A. Because it would be too expensive and because I think the apparatus in a glucose factory would not be sufficient.

Q. To grind it and purify it?

A. To handle it.

Q. It wouldn't be because the elements were not all there?

A. The elements are there, but not in the form in which they are desired as necessary to operate a large factory.

640 EMIL H. OTT, being first duly sworn, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Mr. Ott, where do you reside?

A. Milwaukee.

Q. What is your business?

A. Grocer.

Q. Wholesale or retail?

A. Both.

Q. How long have you been in that business in Milwaukee?

A. Thirty-one years.

Q. Are you with any particular firm, or doing business in your own interest?

A. I am vice-president and manager of the Steinmeyer Company.

Q. You may state whether or not you are carrying on a large business or not?

A. We do a large business.

Q. Do you know an article as corn syrup?

A. Yes, I do.

Q. How long have you known this article corn syrup?

A. Twenty-five years.

Q. Have you ever dealt in that article?

A. Since that time, always.

Q. Do your customers know the article by that name?

A. They do.

Q. Have you ever bought that article by the barrel or half-barrel or keg?

A. From the very start—all in barrels.

Q. Did you afterwards buy it in cans?

A. Ten years ago.

Q. Beginning ten years ago?

641 A. Beginning about ten years ago.

Q. By what name did you buy the article?

A. "Corn Syrup."

Q. Was it barrels or half-barrels or kegs in which you bought it, marked with any name or brand?

A. A private brand.

Q. What private brand did you use?

A. Amber and Sweet Clover.

Q. When you commenced to buy it in cans did you buy it with any particular label or did you have your own label?

A. We had the factory label.

Q. What label was that?

A. We had several labels.

Q. What were they, do you remember?

A. Old Glory and Kairomel from your factory, those two brands, Old Glory and Kairomel.

Q. From the Corn Products Company?

A. Yes sir.

Q. Did you buy from any other factory?

A. Occasionally.

Q. Well, how long do you remember it was that you had any under the brand of Old Glory from any of these factories?

A. Eight or ten years—ten years.

Q. Was those in cans?

A. Yes sir.

Q. I will show you Exhibit 131 and ask you if you have ever seen that brand before, Kairomel brand?

A. I have.

Q. Do you remember whether that is the brand you used on the cans you bought and sold?

A. It is.

Q. You may state whether these percentages were on at the
642 time you sold it or not?

A. They were.

Q. Can you tell us about how long ago you begun to sell under this brand Exhibit 131?

A. Well, five years I believe, I wouldn't be certain. I could look it up.

Q. Well, did you ever sell under the Karo brand?

A. We did.

Q. I will show you Exhibit 143 and ask you if that is the brand, Karo brand, under which you sold?

A. I only remember the name slightly. It was only one shipment we had.

Q. Have you continued for any particular length of time in the sale of this Kairomel brand?

A. Up to the present date.

Q. I will ask you if this Kairomel is a special brand with you?

A. It was for us in Milwaukee, yes, exclusively.

Q. I will ask you whether corn syrup is a syrup called for by your customers under that name?

A. It was.

Q. I mean under the name of corn syrup?

A. Corn syrup.

Q. You may state how far back your customers began to call for it as corn syrup?

A. From the time it was introduced.

Q. You may state whether that article is a popular article with the trade as a syrup?

A. It seems to, it has been growing right along.

Q. How does it compare in popularity with cane syrup?

A. It seems the people prefer it, on account of being smoother.

Mr. OLIN: Prefer it to what?

643 A. To sugar syrup, on account of it being smooth to the taste.

Q. You may state whether any considerable number of your customers purchased this Kairomel brand of corn syrup in your place, I mean your retail customers?

A. How do you mean—what should I state?

Q. Whether you had a considerable number of customers for that?

A. Yes.

Q. Has that been so during the whole time you have been in business?

A. It has.

Objected to as leading and suggestive.

Court: Objection sustained. Strike out answer.

Exception by defendant.

Q. Have you bought this by the carload?

A. We have.

Q. About how many carloads a year do you use of corn syrup?

A. About ten or twelve. It varies.

Cross-examination by Mr. OLIN:

Q. Mr. Ott, you have been dealing in syrups you say for about twenty-five years?

A. In corn syrup, yes sir.

Q. Exclusively?

A. Oh, no.

Q. How old are you?

A. Forty-eight.

Q. So you commenced when you were thirteen?

A. Sixteen I left Madison, been with the business since.

Q. Been in it ever since?

A. Yes sir.

Q. A great many different syrups are on the market in this state, table syrups?

A. Yes.

644 Q. That was especially true up to the time of the passage of the law of 1905?

A. Yes sir.

Q. You remember that law, don't you?

A. I do.

Q. You remember that led, did it not, to some meeting or discussion by the members of the Wholesale Grocers' Association in Milwaukee?

A. I do.

Q. Your firm, or some members of your firm, were officers of that association at that time?

A. They were not.

Q. You are members of the association?

A. I am not.

Q. I mean your company?

A. The company yes sir.

Q. And the officers of that association took up that subject, did they not, as you understood, with the commissioner, the dairy and food commissioner of the state?

A. The wholesale grocers?

Q. Yes.

A. Yes sir.

Q. You remember, don't you, that that law necessitated some change in your method of labeling goods?

A. It did.

Q. That you hadn't complied with before—you hadn't pursued before?

A. Before 1905?

Q. Yes. It required certain changes.

A. I believe we had a change before.

Q. Well, do you remember in what respect you had the change before the law of 1905?

A. In branding?

Q. Yes, in labeling?

645 A. In labeling—it was sold then as table compound.

Q. Under various names?

A. Table syrup compound.

Q. Honey Drips?

A. Sweet Clover.

Q. Honey Drips?

A. Amber Drips.

Q. That was one of your brands?

A. That was the dark one.

Q. And Table Syrup, Rock Candy Syrup?

A. No sir.

Q. Or Pride Sorghum?

A. We had sorghum, yes sir.

Q. You remember that name, don't you?

A. Called sorghum.

Q. Pride Sorghum?

A. Tennessee Plantation Sorghum.

Q. Do you know whether it contained glucose?

A. It was pure.

Q. How do you know?

A. We asked who we bought it from.

Q. It was sold as pure?

A. Well, we are buying it from the same firm today.

Q. Well, you found, didn't you, after this law was passed, as to a food many of those syrups you had to put in the percentage of glucose or compound?

A. Not the highest grade syrups or sorghums.

Q. But as to the lower grades you did?

A. Not with the Loaf Sugar Syrup.

Q. Well, with various grades you did that you were dealing with?

A. Very few.

Q. Now, those names you have spoken of are not corn syrup names?

646 A. The Amber.

Q. The Amber?

A. It was a corn syrup.

Q. Well, do you mean to say that the words "corn syrup" were on the label?

A. Not on the barrel, no.

Q. Nor on the can?

A. We never sold the Amber Syrup in cans, only bulk.

Q. You never sold any of these syrups in cans under the name of corn syrup prior to the law of 1905, did you?

A. Well, we had the Kairomel—that is, ten—eleven years ago, we sold that in cans under "corn syrup."

Q. Well, you didn't sell it under the name of corn syrup?

A. I believe it had "corn syrup" on the label—or five years or six years.

Q. About five years later?

A. Yes, about five or six years. I would like to contradict that, because before this brand we had other brands.

Q. Isn't it a fact that up to within five or six years ago you never sold to the consumer any of these brands under the name of corn syrup?

A. They were sold as corn syrup before. Well, I believe, if I am not mistaken, we have been selling syrups in cans.

Q. Aren't you mistaken about that?

A. I don't think so.

Q. Isn't it the fact that you sold them under these other names?

A. Amber and Sweet Clover, never; they always were sold only in bulk.

Q. Well, that wasn't sold under the name of corn syrup, it was sold under the name of Amber?

A. Amber Syrup or Sweet Clover Syrup.

647 Q. Made up mostly of glucose?

A. Well, whatever it was made of—you heard the doctors say here.

Q. You didn't know what it was made out of?

A. We knew it was made out of corn from the time it was introduced.

Q. You heard that it was made out of corn? That is, you knew it was made out of glucose?

A. We knew that glucose had something to do with it.

Q. And you sold it as Sweet Clover Drips?

A. Sweet Clover Syrup.

Q. That indicates the idea of the dripping down of the syrup from the crystallization of the sugar?

A. Sweet Clover Syrup I believe it was sold by.

Q. Well, you also sold some Drips?

A. Amber Drips—Amber Syrup and Sweet Clover.

Q. Well, you sold some Drips, Honey Drips?

A. We might have Diamond Drips also, but that was a sugar syrup, Diamond Drips was sugar syrup.

Q. Mostly made up of glucose?

A. No sir, it was a sugar syrup from a sugar refinery.

Q. Did you analyze it?

A. I bought it from a sugar refinery.

Q. Do you know how you had to brand that article after this law was passed?

A. Well, we was very careful to see that we got what we bought.

Q. Well, but don't you know that you had it analyzed and you had to change your brand and put on the percentage?

A. Never had that analyzed, no, sugar syrup.

Q. The percentage of cane and sorghum, or whatever it was?

A. No sir.

Q. Did you keep selling that in 1905, Diamond Drips?

A. Sugar syrup?

Q. Are you selling it now?

648 A. I believe we are.

Q. Under the name Diamond Drips?

A. Sugar Syrup. We have it in cans also, Sugar Syrup, absolutely pure.

Q. Absolutely pure?

A. Yes, absolutely pure, in cans, sugar syrup.

Q. Then there is something made absolutely pure from sorghum?

A. Absolutely pure.

Q. From sugar or cane?

A. No.

Q. Now what brands were those of corn syrup that you sold eight or ten years ago?

A. That's hard for me to recollect; some times buy from various factories.

Q. Well, now, can you name any factory that put out any article labeled and sold to the consumer as corn syrup as long as ten years ago?

A. I would not like to make that statement, because I would have to look it up and see when we purchased it.

Q. The fact of it is, you may be mistaken about that time?

A. It does seem to me to be that time?

Q. But you may be mistaken about it?

A. I don't think I am.

Q. But you can't name any concern now that put out any such article?

A. The Corn Products Company I believe.

Q. Now, if any company put it out, it was the Corn Products Company, wasn't it, according to your best recollection?

A. There were other firms too—

Q. No, the point I am directing your attention to is whether any firm put out an article labeled that way as long as ten years ago so that it went to the consumer branded as corn syrup?

A. To my knowledge, yes.

649 Q. Other than the Corn Products Company?

A. I believe so.

Q. Can you name any?

A. I can't now, no, without looking it up.

Q. Isn't it a fact that prior to this law of 1905 in Wisconsin all these mixtures were sold under these various names that you have been mentioning, and that the branding of them as corn syrup didn't come up until after that law was passed?

A. I wouldn't like to make a statement without being certain about that. It seems to me they were marked "corn syrup."

Q. But you may be mistaken about that?

A. I doubt it if I am mistaken. They were known in our business always as corn syrup and people asked for it.

Q. You don't mean to say that these articles were branded corn syrup twenty-five years ago, Mr. Ott?

A. No sir, ten years in the cans.

Q. Now, when you say that you have always dealt in this article as corn syrup for twenty-five years, what you meant was that you have dealt in an article that was made up from glucose that came from corn and some mixtures, but you don't mean that it was branded that way twenty-five years ago and sold to the consumer under that name "Corn Syrup," do you?

A. It didn't come marked that way in the barrels, no, it was marked under our private brand.

Q. It wasn't sold to the consumer that way?

A. It was.

Q. Twenty-five years ago?

A. Mr. Steinmeyer when he was alive——

Q. To the consumer?

Q. Yes sir, he was very conscientious in those things.

Q. There was no law requiring it then?

A. No sir. We never misrepresented anything in our establishment.

Q. Well, did you know it was made up of glucose?

A. I presume Mr. Steinmeyer did.

Q. You don't know, do you?

A. I do, because he posted up his salesmen.

Q. Why, didn't you say a moment ago that according to your recollection the first goods, as I understood you, that were sold under this name of corn syrup, these brands, was about ten years ago?

A. That is, the factory deemed it advisable, I presume, to put it in cans, because many things are put out in that way now, it saves a lot of trouble in handling the goods.

Q. Do you mean that any sales prior to that time by you was in the barrel?

A. In jugs and quart cans, jugs and barrels.

Q. I thought you said cans came in about ten years ago?

A. Yes sir.

Q. Now, prior to that it was in what form?

A. Large barrels, retailed.

Q. You don't know how that article was branded when it was dealt out to the consumer, do you?

A. It only had the brand of the manufacturer.

Q. And you don't know how it was branded by the retailer as he sold it to the consumer?

A. We sold it direct to the consumer from the factory.

Q. I thought you were wholesalers?

A. We buy direct from the factory. We are wholesalers and retailers both, about fifty per cent of each.

Q. Well, did you, down to ten years ago buy goods in barrels?

A. Prior to that time always.

Q. When you sold to the individual consumer, in what form did you sell it to him, when you took it from the barrel, in a can or—

A. It was drawn out of the barrel into a jug or can, whatever the receptacle might have been.

651 Q. And simply sold in that way?

A. As table syrup.

Q. As table syrup, yes. That is, later they got to putting it up in cans and you bought it in cans?

A. Yes sir.

Q. And you have no recollection of selling in cans any article branded as corn syrup as early as ten years ago except this Kairomel brand?

A. Yes sir.

Q. Now, wasn't that a brand, as you understood, that was gotten up originally by this Corn Products Company to do business in Michigan?

A. I did not know that.

Q. Did the Kairomel brand from the start, as you remember, have on it at the top "Trade Mark, Registered" with the word "Corn" written out here on a white ribbon encircling some corn, showing an ear with the leaf?

A. I can't recollect that, only the name.

Q. You don't know when that trade mark was taken out?

A. I couldn't tell you.

Mr. FAIRCHILD: I will offer in evidence from Volume 1 Dictionary of Applied Chemistry, by Thorpe, dated 1894, page 653, this sentence: "In this country the material chiefly employed in the manufacture of commercial dextrose are: sago, maize, rice-starch, finally corn starch, as well as granulated maize and starch being at times used. Potato starch is also used in Germany. In America green maize starch is the chief material, hence the term 'corn sugar'."

The new International Encyclopedia (1903) page 450, under the head "Commercial Glucose." "The term glucose is applied to mixtures of a substance described above, with other carbohydrates, the various mixed products being otherwise called starch-syrup, corn syrup, starch-sugar, corn-sugar" etc.

652 The Universal Encyclopedia, under date of 1900, on page 175: "Starch sugar appears in commerce in a great variety of grades under the following names: liquid varieties: glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' srystal glucose, maltose, maltose-syrup, maize-sugar; solid varieties are called grape sugar" etc.

I read from a certified copy of the pure food laws of the state of Iowa which went into effect July 4, 1907, also the note, being the rulings of the commission on various subjects, on page 18, under the heading "Sugars, Syrups and Honey", the following:

Mr. OLIN: We object to this and we want the date of it, that those rulings were put into effect. On the front is "Effective July 4, 1907". Is that the date that we are to understand the rulings went into effect?

Mr. FAIRCHILD: Why I presume so.

Court: What is the ground of your objection?

Mr. OLIN: Why, I don't think that is competent testimony here. I can't see how that could in any way control the situation here. It depends on what the law in Iowa is.

Court: Do you offer the law or simply the ruling?

Mr. FAIRCHILD: I will offer both of them.

Court: The court can then determine the value of the ruling. Received.

Mr. FAIRCHILD: "The name 'corn syrup' or 'glucose' but not the name 'grape sugar' should be used for the liquid product usually known as glucose".

(Marked Exhibit 215).

Mr. FAIRCHILD: I offer in evidence a certified copy of the Twenty-first Annual Report of the Ohio Dairy and Food Commissioner to the governor of the state of Ohio for the year ending November 15, 1906, so far as appears on page 24 and part of 25 under the head of "Corn Syrup", and preceding "Corn Syrup" appears the amended statute of that state of April 6, 1906.

Mr. OLIN: We object to that law that he refers to, it deals entirely with maple syrup, if I have read it correctly, the other is some dissertation by the commissioner on something entirely different, having nothing to do with the law.

Mr. FAIRCHILD: The object of introducing this, your honor, is not particularly to show the interpretation of the law, but to show, your honor, that corn syrup is a well recognized syrup the country over, and this is in the report, I agree with Mr. Olin, although it is headed "Maple Syrup and Sugar Law of Ohio", I don't just catch now where it refers to the sugar, it probably refers to maple sugar.

Court: It may be received.

Mr. FAIRCHILD: The heading is "Corn Syrup". "The various corn syrups have been sold under many different names, but labeled to contain varying percentage of cane sugar and glucose; for instance 10 per cent cane and 90 per cent corn (glucose) syrups; 25 per cent cane and 75 per cent corn; 35 per cent cane and 65 per cent corn, etc. In these instances, the dealer as well as the customer supposed that the more cane sugar purported to be used in the manufacture of the syrup, the better the syrup, and it should be, and should be more expensive. Tests by the department showed that those syrups represented to contain the greater percentage of cane sugar in almost, if not quite, every instance, contained the least, and that none of them were true to formula. The actual percentages of cane were so small in many of them, that the products could be sold as corn syrup without any formula and the department has taken

654 the position that they must be sold simply as corn syrups or else the formula given must be a statement of facts. It is believed that the department's position will be complied with by manufacturers and dealers".

(Marked Exhibit 216).

Mr. FAIRCHILD: I offer certified copy of New Hampshire Sanitary Bulletin, published quarterly by the state board of health under date of October 1907, under the pure food and drug laws of the state of New Hampshire, with rules and regulations for the enforcement of the same as promulgated by the state board of health, and the particular part I refer to is Regulation 33, page 306. That Regulation is headed "Molasses Containing Glucose".

Mr. OLIN: We object to it as incompetent, irrelevant and immaterial.

Court: It may be received.

Mr. FAIRCHILD: "Regulation 33. Molasses containing Glucose. A mixture of molasses with glucose or corn syrup is not molasses and dealers are notified (or warned) that the offering of such without due notice in response to calls for molasses is fraudulent. In addition to such verbal notice, it is suggested the dealers selling molasses glucose mixture further protect themselves by the posting in their places of business notice to the effect that molasses and glucose (or corn syrup) mixture is sold here."

(Marked Exhibit 217).

Mr. FAIRCHILD: I offer in evidence the food standards under the food and drug law of Louisiana, adopted April 25, 1908. The constitution of the state of Louisiana authorizes the board of health to establish standards which shall have the effect of law." This is on page 42 under the head of "Glucose Products".

655 Mr. OLIN: We object to that. "We don't see what force the action of a board down in Louisiana is going to have on the state of Wisconsin.

Mr. FAIRCHILD: It has no force at all, except to show that corn syrup is a recognized name for this commodity everywhere.

Received in evidence.

Mr. FAIRCHILD: The second subdivision under that head "Glucose Products" is: "Glucose, mixing glucose, confectioners' glucose (Corn Syrup) is a thick, syrupy, colorless product, made by incompletely hydrolizing starch, or a starch containing substance, and decolorizing and evaporating the product. It varies in density from forty-one to forty-five degrees Baumé at a temperature of 100 degrees Fahr."

(Marked Exhibit 218).

Mr. FAIRCHILD: The Sixth Annual Report of the state food commissioner of Illinois for 1905 at page 36; on page 35 is the heading "Sugars." "Glucose mixture is a syrup made from glucose and other sugars. Corn or glucose syrup is commercial preparations and glucose, or a solution thereof."

(Marked Exhibit 219).

Also the Seventh Annual Report of the state food commissioner of Illinois for 1906.

(Marked Exhibit 220).

Mr. OLIN: Who was commissioner in 1905?

Mr. FAIRCHILD: Alfred H. Jones. This is a note under the heading of "Fruits and Fruit Products" on page 33. The language is: "Preserves, jellies, jams and similar products containing glucose and added color must be labeled according to Labels 14 and cannot be sold under any other name than there given. 'Corn Sirup' may be substituted for the word glucose whenever the latter appears in this bulletin".

And the same commissioner, Alfred H. Jones, in 1907, Eighth Annual Report, has quite a statement on corn sirup. On page 98 under the head "Sirup (other than Maple and Molasses)". "These syrups are usually sold as 'table sirup'. The name 'table 656 sirup' is not a distinctive name (Sec. 9—First) and all such syrups should be clearly branded with the true name of the article, as corn and cane sirup, etc., thus showing that it is a mixture or compound, and showing its components".

(Marked Exhibit 221).

And on page 201 of the same volume is the same statement as read from the other report in a foot note: "'Corn Sirup' may be substituted for the word 'glucose' whenever the latter appears in the bulletin. See rules for labeling No. 26". And over on page 203, the standards, we find the following under the head of "Glucose Products". "Glucose, corn sirup, mixing glucose, confectioners' glucose, is a thick, sirupy, nearly colorless product made by incompletely hydrolizing starch, or a starch containing substance and decolorizing and evaporating the product".

(Marked Exhibit 222.)

I offer from the Laws of Illinois, 1907, bill headed "State Food Commissioner. House Bill No. 844. Approved May 14, 1907". The general heading on page 548 is "Misbranded Defined". On page 549 is: "Third. In the case of mixtures of corn sirup (glucose) or corn sugar (dextrose) or corn sugar sirup, with cane or beet sugar (sucrose) or cane or beet sugar sirup, in food, if the maximum percentage of corn sirup (glucose) or corn sugar (dextrose) or corn sugar sirup, in such article of food be plainly stated on the label". That is, it will not be considered misbranded.

(Marked Exhibit 223).

Mr. FAIRCHILD: I offer in evidence the opinion of the attorney general to the president date- April 10, 1907, which bears partly on this and partly on another question involved in the case. After the statement "Food Inspection Decision No. 65" there is a passage on pages 4 and 5 that I wish to read: "The primary purpose of the 657 pure food law is to protect against fraud consumers of foods or drugs; as an incidental or secondary purpose it seeks to prevent or at least discourage the use of deleterious substances for either purpose, but its first aim is to insure, so far as possible to purchasers of an article of food or of a drug it shall contain nothing different from what he wishes and intends to buy. According to the recognized canons of statutory construction, the language of its provisions must be interpreted with reference to and in harmony with its primary, general purpose; so that in determining the proper

nomenclature for articles of food as defined in the act the intention of the law will be best observed by giving to such articles names readily understood and conveying definite and familiar ideas to the general public, although such names may be inaccurate in the view of a chemist or physicist or an expert in some particular industrial art, as in the distillation and refining of syrup. Moreover, the same name may be given by dealers or the general public to two or more substances differing very materially in their scientific characteristics, and this fact must be given due weight in passing upon questions of branding or labeling under the law."

(Marked Exhibit 224.)

Mr. FAIRCHILD: I offer in evidence from the report of the Imperial German Board of Food Chemists, 1899, volume 2, 1897, page 95: "In Germany starch-sugar and starch-syrup occur in large quantities in commerce. The German production amounts per annum to seventy to ninety thousand double zenters of starch-sugar, and two hundred and fifty to two hundred and eighty thousand double zenters for starch-syrup. In Germany both are almost exclusively produced from potato-starch by boiling with acids, usually hydrochloric or sulphuric acid, by neutralization with chalk filtration over bone-black, and evaporating in vacuo from 42 to 44 Baumé, therefore often called in commerce potato-sugar and potato-syrup, rather rarely grape sugar".

658 (Recess until 7:45 P. M. January 2, 1909, at which time the trial was resumed).

J. Q. EMERY, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Mr. Emery, since you were on the stand have you had some correspondence with Dr. Ladd, of South Dakota, is it?

A. North Dakota.

Q. North Dakota.

A. I have received a letter from him since that time.

Q. Is this the letter bearing date December 30, 1908?

A. Yes, sir.

Mr. OLIN: We offer in evidence the last paragraph. Objected to as entirely immaterial.

Objection overruled.

Exception by defendant.

Mr. FAIRCHILD: I think, Mr. Emery's letter ought to go in if that comes in.

A. I am willing to state just what I said. I didn't ask him for any such comment, I simply told him in a letter on another subject that we were going to trial on the glucose mixture case soon, that is all I told him. I didn't ask him for any opinion. It was a voluntary opinion.

Mr. OLIN: The part we ask to offer is: "I sincerely hope you will win your glucose mixture case, for this is a valuable precedent if we can once secure its establishment".

659 Dr. RICHARD FISCHER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. Do you know the ages of the men making up the standards committee at the time they acted in fixing these standards in Circular No. 19?

A. Yes sir, I looked up their ages and experience.

Q. In what book?

A. In American Men of Science.

Q. That's where all the big men appear?

A. Why, some of them.

Q. Just state it.

A. Why, the average of the six men who comprise this committee collaborating with the secretary of agriculture in preparing standards for Circular No. 19 was at the time fifty-two years.

Q. Give their respective ages, if you have it there at that time?

A. Webber, sixty-one; Wiley, sixty-two; Frear, forty-six; Jenkins fifty-six; Scovell, fifty-one; Fischer, thirty-seven.

Q. And those same men and two or three other men make up the combined committee of the two associations today?

A. At the present time there are four more members.

Q. Name those other four.

A. Barnard of Indiana, Fullmer of Washington——

Q. Give their ages.

Q. Barnard is about thirty-five. He is not connected with any school or anything of that kind, and I don't find his name in the American Men of Science. Fullmer is forty-four. Wood is fifty-two. Wood is Director of the Maine Agricultural Experiment Station. Shepard, although he is professor at the South Dakota agricultural experiment station, is not mentioned either in American Men of Science; his age is about fifty-five.

660 Q. Will you state what the connection is, if any, between the agricultural chemists and the dairy and food commissioners of the different states and Dr. Wiley at Washington?

Mr. FAIRCHILD: Now, Mr. Olin, I am willing and I would rather have expunged from the record every word of testimony given by Professor Chandler on the subject of the reason why he would not take the opinions of these men, these food chemists, because I didn't know what he was going to testify to and hadn't talked with him about it, and I shouldn't have asked that question, if I had known what he was going to testify to, and I don't think it is fair for Mr. Fischer or any one else to have any personal feeling about it.

Mr. OLIN: He hasn't any personal feeling about it at all, I am just about through, I prefer to let the record stand.

Q. You can answer that question briefly.

A. These various officials mentioned are not acting in their various stations under the authority of Dr. Wiley. They naturally, especially the chemists of the various agricultural experiment stations, cooperate with the chemists of the United States Agricultural Department, but that is all—just cooperation.

Q. On both sides?

A. Cooperation on both sides, yes sir.

Q. No authority either way?

A. No sir.

Q. Have you got a copy of Circular 19 with you?

A. I think I have.

Q. Turn to page 10, under the general head of "Syrups" and in subdivision 2 there is an expression there that I wish to have explained. It says "Sugar cane syrup is made by the evaporation of the juice of sugar cane". Now, it is this part: "or by the solution of sugar cane concrete". What is meant by that expression?

A. I can perhaps best describe that by giving a definition for "Concrete" in connection with "sugar concrete" as definition 661 4 under "Sugar and Sugar Products" of the standards in Circular No. 19.

Q. What page?

A. That is at the top of page 10. That reads "Massecuite, melada, mush sugar, and concrete are products made by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semi-solid consistence, and in which the sugar chiefly exists in a crystalline state." As an example, well known example, of what would be known of "concrete" I can give maple sugar produced by the evaporation of maple sap to such a consistency that the whole mass will become crystalline throughout, these crystals holding whatever non-crystallizable matter there is and the water.

Q. There was some criticism by Dr. Chandler on subdivision 5, the definition of "sugar syrup" on page 10. I wish you would just state briefly the reason or object for making that subdivision.

A. One reason was that "sugar syrup" is recognized in the various pharmacopeias as a simple solution of cane sugar, sucrose, in water. It would also cover a pure rock candy syrup, one made by dissolving rock candy in water, rock candy being the purest commercial form of sucrose, that is, if uncolored; it some times appears in the market colored of course, as we all know. What is ordinarily sold as Rock Candy Syrup, would not come up to that definition. It is the liquid that is left after the rock candy is crystallized out of a solution of sugar, and therefore contains most of the impurities and most of the rock candy syrup that has been sold in years passed contained a very considerable amount of glucose.

Q. Dr. Chandler testified, in substance, that the quality as to a true syrup, like cane, maple and sorghum was directly proportionate to the amount of invert sugar that is produced in the manufacture of such a sugar. Now, what do you have to say about that, doctor?

A. I do not agree with that statement.

Q. Well, state the reasons.

A. Take as an example maple syrup, the best grades and
662 the finest grades, the finest flavored of maple syrups are those that contain the least invert sugar.

Q. That is an invert sugar is less valuable or of a lower order than cane sugar?

A. From the standpoint of nutrition it is not less valuable, but it is less valuable because it is less sweet.

Q. Now doctor, I would like to have you, to make things clear here in the record, be very brief, answer a few questions here with reference to what we have termed true syrups, molasses and refiners' syrup. Now, first I will ask you to state whether in syrups made from the juice of either the cane or the sorghum or the maple any of the sugar is removed or whether the syrup contains all the sugar.

MR. FAIRCHILD: I object to that because he has admitted that he has never had any practical experience at all and that all that he knows on that subject is what he learned from the books.

COURT: I don't recall, Dr. Fischer, that you have stated exactly your practical experience in reference to sugars and syrups.

A. I have—we have made a little syrup; that is the extent of my experience in the actual manufacture. I have been in a sorghum sugar establishment, which didn't last very long, in my home town, but I have read up on the subject considerably.

COURT: What I was asking for particularly was your practical experience, your practical knowledge.

A. That is practically nil. I have analyzed a large number of syrups, but I have not manufactured them.

COURT: What does your analysis show, what information does that give you. Not the specific analysis, but what do you learn, through your analysis of various syrups and sugars.

A. Well through analyses in connection with the reading and with observation as to colors, flavors, etc. I think I have learned considerable about syrups, molasses, etc. The analysis, for instance, of molasses will to a certain degree, taken in connection with its flavor and its color, indicate something as to its character. I have had a good deal of experience in the analysis of maple syrup.
663

COURT: It appeals to me that that is an experience which qualifies. He may answer.

Exception by defendant.

A. Well, the definition for syrup in the standards explains that point, for the definition says—

Q. You may answer it aside from the definition.

A. Such syrups, if they correspond to these definitions, and sorghum syrup and maple syrup at least are ordinarily prepared that way, are made by evaporating down the sorghum juice or the maple sap to a syrupy consistency without crystallizing out any of the sugar.

Q. You don't then crystallize out any of the sugar?

A. No.

Q. Now, next take molasses, and where there is a refinery and they are making sugar, how do they get the molasses—what is it?

Mr. FAIRCHILD: I object to it as incompetent, he hasn't shown any competency to testify on that subject.

COURT: I didn't understand he had, as to molasses.

A. From the analysis of a cane syrup such as I have described and the analysis of a molasses resulting therefrom, I can arrive at a conclusion as to the difference, especially in conjunction with my reading of it.

Q. Does that give you information as to the methods of manufacture, or does that give you information with reference to chemical constituents?

A. Well, that does with reference to chemical constituents, but taking into consideration the color of the resulting molasses and its flavor, I also know something of its treatment, I can arrive at a conclusion which I think, taken in conjunction with my reading on the subject, warrants me to speak with some authority.

COURT: I think as a matter of fact that all this ground has been covered in the testimony.

Mr. OLIN: Perhaps it has. It wasn't clear in my own mind, it may be entirely clear in the court's mind.

COURT: It doesn't appeal to me that Dr. Fischer is qualified to speak upon the production of molasses.

A. I have a definition of molasses in the standards which I helped develop as showing what molasses is.

Mr. OLIN: If the court feels he is not competent to answer the question, we will pass on.

COURT: I think I shall sustain the objection.

Q. Dr. Chandler stated in his testimony, in testifying that refiners' syrup had cane flavor, that as long as the original starting point was the cane, you ought to have the flavor produced in any method of manufacture, a cane flavor. What do you say as to that?

A. I do not agree with that statement at all.

Q. And why do you say that?

A. Because, according to that statement, the term cane flavor would be meaningless. Both refiners' syrup and molasses would be entitled to the term cane flavor; or a cane syrup such as I have described, made by evaporating the purified sap without removing any of the sugar, would be entitled to the term cane flavor. I think that the latter alone is entitled to the term cane flavor, because that flavor is so changed in the subsequent methods of manufacture as to not at all resemble the flavor of the product when evaporated to the consistency of a syrup without removing any of the sugar.

Q. What do you understand would be a correct definition of this term cane flavor?

A. The one that I gave, the flavor that is attached to a syrup when the juice is evaporated to the consistency of a

syrup, or the flavor is very little modified if the juice is evaporated down to such a consistency as to form a concrete. That is the way in which we use the term flavor in connection with sorghum. That is the way we use it in connection with maple.

Q. Doctor, in the statement of the principles upon which the standards are based, which have been introduced in evidence, the third subdivision is this: "The definitions are so framed as to exclude from the articles defined substances not included in the definitions." You say that, don't you?

A. Yes sir.

Q. I wish you would state for the information of the court here in this case just what you understand by that.

A. To fix the standards in such a way that their meaning shall be perfectly clear and that they can not be abused when they are used in the enforcement of pure food laws, it is necessary to have such a statement, that not merely are these definitions into which anything else can be inserted, but the definitions are intended to be so framed as to exclude from the articles defined substances not included in the definition. Likewise it was the understanding of the standards committee in framing these definitions that the terms used, with their synonyms, alone should be used as designating the product described in the definition; for, again, otherwise, the standards would become meaningless, and worthless.

Q. An article was referred to here by counsel on the other side in the Universal Encyclopedia, written by Dr. Remsen?

A. Yes sir.

Q. Are you familiar with that article?

A. I read it.

Q. And you have it here, have you?

A. Yes sir.

666 Q. Do you know the date of it—about?

A. The date of it?

Q. Yes.

A. 1900.

Q. A certain portion was read there in which the words corn syrup was used?

A. Yes sir.

Q. Is that the only place where it appears?

A. I have carefully read through the article and that is the only mention I find of that kind.

Q. It's an article on what subject?

A. Article on the subject of glucose, and the term glucose is used quite frequently throughout the article.

Q. That states, doesn't it, the analyses of these various samples or various mixtures that are found in the academy report, substantially?

A. Yes sir. I think it is a copy from the academy report.

Q. And does that contain the analysis of the article sold under the name or purporting to be sold under the name "maltose"?

A. Yes sir.

Q. And his analysis there shows that that article contained how much maltose?

A. Six-tenths of one per cent.

Q. Thus indicating that it was what kind of an article?

A. As indicating that it was not maltose, and from the rest of the analysis it appears to be commercial glucose, although maltose is given in the list with corn syrup as one of the names of the liquid varieties under which it appears in commerce.

Q. Do you know whether Food and Dairy Commissioner Wright of Iowa attended the meetings at Jamestown and Mackinac?

A. I do not think he was present at Jamestown. He was
667 present at Mackinac, at least during part of the time—most of the time.

Q. Do you remember whether Commissioner Dunlop of Ohio was at these meetings?

A. Yes sir, I am certain he was at the Jamestown meeting and at the Mackinac meeting during the whole time.

Q. And do you know whether he made any objection to the adoption of these food standards?

A. I know he did not.

Mr. FAIRCHILD: He wasn't present at the time.

A. He was present—Oh, yes.

Mr. FAIRCHILD: At the time the vote was taken?

A. Yes, at the time the vote was taken Commissioner Dunlop was present.

Q. Do you know whether the rules that were referred to by counsel on the other side were promulgated by him or by his predecessor?

A. That was from 1906, was it not, the Ohio report?

Q. Yes, 1906. It was ending November some date, 1906.

A. Horace Ankenny was dairy and food commissioner of Ohio during all of 1906 and the three preceding years.

Q. Some statement was read here from the board of health I think of the state of Michigan of 1906 or 1907. Do you know whether the food and dairy commissioner of that state was at the Mackinac meeting at the time these standards were adopted?

A. You said board of health of Michigan?

Q. Yes, but I asked you if you knew whether the food and dairy commissioner of the state was present?

A. Of the state of Michigan?

Q. New Hampshire, was at the meeting at Mackinac?

A. I understood you Michigan.

Q. I mean New Hampshire.

A. The chemist of the board was present at the meeting at
668 Mackinac—I am not certain, I do not think he was present at Jamestown.

Q. Did he make any objection to the adoption of these food standards?

A. No sir.

Q. Do you know who was the food chemist to the department in Illinois in 1905 and 1906?

A. Dr. Eaton was state analyst of Illinois, chemist for the dairy and food commission up to some time in 1906.

Q. That's the same Dr. Eaton that was at Portland?

A. Yes sir.

Q. Do you know who the food chemist to the department of Illinois now is?

A. Dr. T. J. Bryan, I believe.

Q. Was he present at the meeting at Mackinac, representing Illinois?

A. Yes sir, he was present at the meeting at Mackinac and the two preceding meetings.

Q. Did he make any objection to the adoption of these food standards?

A. No sir, he did not.

Q. Do you know personally his position on the matter?

A. He has stated his position on the matter to me.

Mr. FAIRCHILD: That is hearsay.

Q. There was some quotation read here from a German book, The Imperial German Board of Food Chemists. You have that book, doctor?

A. Yes sir.

Q. You have looked it through, have you?

A. I have read through the article on Starch, Sugar and Starch syrup.

Q. You notice the various headings?

A. That is the heading of the article, and I notice the names given to these products in the text of the book.

669 Q. And what are the names given in the text of the book?

A. With the exception of the one statement which Dr. Wagner translated, to the effect that "Starch sugar and starch syrup frequently occur in commerce under the names of potato sugar or potato syrup, more rarely as grape sugar," I find no reference to either the term "potato sugar" or "potato syrup" in the book.

Q. And, as a matter of fact, do you know whether this glucose made from the starch of potato or from the starch of corn is used as a syrup in Germany?

A. Do you mean table syrup?

Q. Yes.

A. It is very rarely used as a table syrup in Germany. During the two years that I lived in Germany, a little over two years, I never saw it served once at a table, although I traveled very extensively through various parts of Germany and ate at various hotels and restaurants and private boarding houses (pensions.)

Mr. FAIRCHILD: Did you see any other syrups used?

A. No, they generally use honey instead of syrup. Table syrup. I didn't mean by table syrup, glucose mixtures, but I meant any of the syrups used on the table.

Q. There also was a reference made to the New International Encyclopedia. Have you examined that book?

A. I read through the book—no, I haven't read the book, I will

take that back, but I looked through the article on glucose contained in that book.

Q. What do you find as to the term used to designate that article?

A. Under the head "Commercial Glucose" there appears first the statement: "The term glucose is also applied to mixtures of the substance described above with other carbohydrates, the various mixed products being otherwise called starch syrup, corn syrup, corn sugar, etc." With the exception of this reference to the term corn syrup, I fail to find any reference to the term corn
670 syrup, although the term glucose is used, and in one place it speaks of "syrup glucose".

Q. You heard, did you not, doctor, the definition given by Dr. Chandler of syrup?

A. Yes sir, I read his definition.

Q. As given in the compilation?

A. Of opinions of Chemists, compiled I think by him.

Q. Will you name some of the various substances that would fall properly within that definition other than what is commonly known or known as syrups at all?

A. His definition, as I understand it, is that any thick, sweet liquid is a syrup, no matter what kind of sugar it contains.

Q. And he adds to that on trial here even though it contained other elements and things that are sweet.

A. Under that definition of the term syrup, honey would certainly be included, likewise malt extract, condensed milk, mucilage of acacia with a small percentage of any sugar.

Q. How about glycerin?

A. I do not think glycerin would be included in it, since from the definition it appears that sugar must be one of the constituents, because he always speaks of sugar in it; although a mixture of glycerin with simple syrup would come under that definition.

Mr. OLIN: I am a little uncertain whether I introduced Exhibits 12 and 13, and I will therefore now offer them in evidence. Also Exhibits 6, 7, and 10.

Q. Now doctor, have you consulted those pages 13 to 17 inclusive that were introduced, found in the preparation of opinions submitted to the secretary at Washington and testified to by Dr. Chandler?

A. Yes sir, I have.

Q. Have you examined them with reference to determining how many authorities he mentions there, German authorities, that use the term "potato syrup" or "starch syrup" in describing
671 commercial glucose?

A. I have looked over all the German authorities, that is, books published in Germany, there is one published in Vienna which I have not included, but published in the German Empire.

Q. What do you find as a result of your examination?

A. I have looked up all these German authorities that use the term either "potato syrup" or "starch syrup" or both in this compilation, and I find that only one uses the term "potato syrup" and not "starch syrup". That book was published in 1845—or the article published—it isn't quite plain, I think it's a book—yes, it is

evidently a book. One gives both, "potato syrup" and "starch syrup" while nineteen give "starch syrup" but not "potato syrup".

Q. You heard the list of Eminent Chemists, I think that was the characterization of them, who had given opinions that were submitted at Washington, and concerning whose opinions Dr. Chandler testified, you heard that testimony?

A. Yes sir.

Q. You have a copy of the same book, have you not?

A. I have.

Q. And part of those opinions were offered and received in evidence?

A. Yes sir, as I remember it.

Q. And you have examined those, have you?

A. I have.

Q. Since they were introduced?

A. Yes sir.

Q. Have you also examined those the authorship of which were given but which were not introduced in evidence?

A. Yes, I have, although I have not given them quite as careful attention as the others.

Q. Speaking of that class first, do they all sustain the contention made by Dr. Chandler for his definition here of the term "syrup" or "corn syrup"?

A. All of them sustain his definition of "syrup" and some go farther and apply the term syrup to any thick liquid of a syrupy consistency, whatever its composition and whatever its taste. I remember only one now who agrees with Professor Chandler in his definition for syrup, but evidently not in his definition for corn syrup, because he does not state that in his opinion. That is Ernst A. Lederle, who I believe was formerly president of the New York board of health.

Q. What page is that on?

A. On page 25.

Court: Did I understand you to say that he uses "corn syrup"?

A. No, he does not. I believe the others, if I am right, all say that corn syrup is an appropriate term. He does not, and perhaps there are others who do not.

Mr. FAIRCHILD: He doesn't speak about it at all, does he, doctor? He doesn't say anything about that. He just simply gives a general definition of a syrup.

A. He gives a general definition of a syrup, but I take it from the way that the other opinions are written that they were asked whether corn syrup was not a proper designation. I believe Professor Chandler so stated. And on looking over the list I see another one, on page 21, signed C. A. Goessman. There may be others. As I said before, I haven't looked through these other opinions very carefully.

Q. Generally, these gentlemen who have given these opinions, what do you say as to whether they are food chemists or not?

A. I believe there are only two who have had any experience at all in the enforcement of the laws, had anything to do with food control.

673 Q. One of them is Dr. Chandler?

A. One of those is Dr. Chandler, and the other Dr. Lederle, whom I referred to.

Q. Take the one on page 1, Professor Charles Baskerville. That is very brief, you may state it, and state whether that is a correct definition.

A. Professor Baskerville defines "syrup" as follows: "The term 'syrup' conveys the same meaning to the scientific and lay mind, namely, a thick, sweet solution of sugar. The designation 'corn syrup', indicating the source of the sugar, is justifiable".

Q. Now, what do you say as to that, "A thick, sweet solution of sugar".

A. I can only conclude that Professor Baskerville could not have had the composition of commercial glucose in mind when he gave that opinion.

Q. Why do you say that?

A. Because commercial glucose is not "a thick, sweet solution of sugar". It is a thick, sweet, or sweetish, solution of—primarily of one sugar, dextrose, and a small quantity of another sugar, and a considerable proportion of dextrin, which is not a sugar. Perhaps Professor Baskerville has in mind under the name "corn syrup" a solution of a starch sugar. One would almost think so, from his definition. I can reach no other conclusion.

Q. You find in the opinions one on page 3, do you not, by Professor William H. Brewer, of New Haven, Connecticut?

A. Yes sir.

Q. You understand he is one of the committee who acted in making up the academy report?

A. Yes sir.

Q. That wasn't, I believe, offered in evidence?

A. Not as I understand it.

674 Q. Now, take, just for example here, the one given on page 2 as characteristic of a number of them, by Marston T. Bogert, and where he states: "It is my opinion that the word 'syrup' is not a technical one, but of general significance. As such it is usually understood to mean a thick, sweet liquid. Frequently, it is applied to any liquid of syrupy consistence, totally irrespective of whether the liquid is sweet or not". What would you say of such a definition as that for any practical use in the administration of a food law?

A. I would consider it absolutely worthless.

Q. Now, why do you say that?

A. First of all, taking the first definition, somewhat more restricted, as applying to any thick, sweet liquid, it would include extract of malt, sweetened condensed milk, and even glycerin; while in the broader sense that he gives later, "any liquid of syrupy consistency", he would have to include even syrupy phosphoric acid, or you could include it. He also says that the term "corn syrup" convey a perfectly truthful meaning, that of a thick, sweet liquid, produced in some way from corn, and it would be so understood by the general public". My opinion is that the general public

have in mind a specific way in which it is produced from corn—namely, it would associate this method of manufacture with a method of manufacture of sorghum or of maple, with which most people in this state, I believe, are more or less familiar. And if he says that corn syrup could be applied to a thick, sweet liquid produced from corn, even making it more specific, treating a part of the corn, the starch, the greater percentage, with an acid in the manufacture of glucose and term that “corn syrup” then it would be just as correct to take the greater part of the maple wood, cel-ulose, treat that with sulphuric acid, which the evidence shows will produce also glucose, take this sweet liquid so produced and
 675 call it maple syrup, because that would be also “a thick, sweet liquid” produced in a similar way as glucose is from corn, from the maple tree.

Q. Dr. Chandler's opinion and report extends, does it not, from page 5 to page 18 inclusive?

A. Yes sir.

Q. Take another opinion here that you find on page 22, by Walter S. Haines, Professor of Chemistry, etc. Rush Medical College, what do you say as to that?

A. That definition or statement is as follows: “Both by common usage and by dictionary authority the word ‘syrup’ is properly applicable to a thick solution of glucose, and since the latter is invariably made from corn in this country, the term ‘corn syrup’ with us is literally descriptive and entirely appropriate”.

Q. That is his statement?

A. Yes sir. Commercial glucose can not be considered “a thick solution of glucose, either chemically or commercially speaking. Commercially speaking, it is glucose and not a solution of glucose. Chemically speaking, it is not a solution of glucose, but a solution of glucose with much dextrose, dextrin and a little maltose and the minor mineral constituents.

Q. Might that more properly refer to a solution of sugar with glucose?

A. Yes sir, a solution of starch sugar.

Q. Now, another opinion that is given is that of Dr. Charles Loring Jackson of Harvard University, at page 23. What does he say about that?

A. He says: “In my opinion the word syrup means a thick, sweet solution of sugar or sugars, and properly can not be confined to solutions of cane sugar”. Here again, commercial glucose is not merely “a thick, sweet solution of sugar or sugars” but it includes a very high percentage of a substance which is not a sugar.

676 Q. Doesn't his definition indicate that he has in mind glucose sugar rather than the commercial product?

A. Yes, he might. And again, the only other thick solutions of sugar, with the exception of honey, that I can think of that are sold commercially at the present time for food purposes would be the syrups of our standards.

Q. What does it say at the end of his opinion?

A. "I give these opinions with some hesitation, as I am in no way an expert on the subject of sugars".

Q. Now, take page 26, Exhibit 176, the statement by J. W. Mallet, Professor of Chemistry at the University of Virginia. He states: "The word syrup is generally applied to any watery solution of viscid consistence and sweet taste, whatever may be the particular saccharine substance or substances to which this taste is due". What do you say as to such a definition as that?

A. Well, that definition, as professor Chandler's, would include malt extract and honey and sweetened condensed milk, the mixture of mucilage of acacia and sugar.

Q. Really the same definition as given by Dr. Chandler?

A. Yes sir. He also states there that "The word corn is in the United States generally understood to mean the grains of 'Indian corn' or 'maize'. I do not agree with that, because I think that the meaning of the word "corn" in the United States depends upon the context, and if a person speaks of "corn syrup" that to the ordinary consumer or purchaser brings up the idea of sorghum and a similar method of preparation. In my investigation I might say on that particular subject, because I made a large number of inquiries, I have only found one who thought corn syrup came from the grain of corn, that the solids that were present—that is, of laymen, not chemists—that the solids that were present——

MR. FAIRCHILD: Are you speaking about chemists or are
677 you speaking about laymen?

S. I am speaking about laymen, intelligent laymen.

Objected to as incompetent and mere hearsay.

Objection overruled.

Exception by defendant.

A. The person to whom I refer is a jobber of groceries in the city, Mr. Blackburn.

COURT: Now, are you speaking of the result of your investigations or what he told you, his investigations?

A. I am telling—Mr. Emery first and I subsequently, asked him——

COURT: Are you stating what Mr. Blackburn said or are you about to state what you yourself have ascertained by inquiry among the people?

A. I was going to say what I ascertained by inquiry of Mr. Blackburn as to his own opinion of this word.

COURT: I didn't so understand your statement. The objection will be sustained then.

Q. There is an opinion at page 28, Exhibit 178, introduced by a gentleman signed Samuel P. Sadtler, who, I judge, was a professor of Philadelphia. In that he says: "By analogy with the use of the term 'Kartoffel Syrup' or potato syrup, used almost exclusively in Germany to designate the corresponding product made from potato starch, it should be called 'Corn Syrup'".

Q. Well, I believe I have shown from Professor Chandler's com-

pilation that the term "potato syrup" is not "used almost exclusively in Germany", but the facts are quite the reverse.

Mr. OLIN: We offer to put in evidence the proposed bill that has been prepared by the representatives of the State and National Dairy and Food Associations, carrying out the instructions of the vote unanimously adopted at Mackinac.

Objected to as incompetent and immaterial.

678

Objection sustained.

Cross-examination by Mr. FAIRCHILD:

Q. Doctor, you say that the cane flavor, as I understood you, is the flavor that is attached to the syrup when the juice is evaporated down to the consistency of a syrup—is that it?

A. I believe I added to it "and if it is evaporated", "or if it is evaporated to a concrete".

Q. If it is evaporated to a concrete?

A. Yes. I associated that idea of a syrup flavor with the flavor of maple syrup and of maple sugar, this cane concrete corresponding to the maple sugar made by evaporating the cane sap to such a consistency that upon cooling it will congeal as it were, form one solid mass.

Q. Does it take the flavor then from the concrete itself?

A. The flavor exists in there as it does in maple sugar. If you would add a little water to that and would *centrifuge* out the liquid portion, the flavor would primarily remain in the liquid portion.

Q. Do you think by carrying the process any farther than that you would get any different flavor?

A. Yes sir.

Q. How—why?

A. You would get, due to the chemical changes and to the formation of a large amount of caramel, a flavor, so the original flavor would no longer be recognizable. That is what you actually do in the manufacture of molasses.

Q. Do you get any caramel at all in your first process?

A. A slight amount.

Q. A slight amount?

A. Yes sir.

Q. Now, do you get any different flavor by carrying it on,
679 or simply a stronger flavor?

A. You get a different flavor, because if you dilute molasses you can never restore it back to the original flavor. If it were merely a question of dilution, if you dilute your molasses back with sugar and water, you ought to get back the original flavor, but that isn't true.

Q. Would it make any difference if you evaporated it in a vacuum or in an open kettle?

A. Oh, there would doubtless be some difference.

Q. Wouldn't there be a very great difference?

A. Yes, there might, and might not, depending upon the care with which the operation was conducted.

Q. Well, the amount of this caramel that you say you would get would depend a good deal upon the method of manufacture?

A. Yes sir, the higher the heat you apply the greater the amount of caramel that is formed.

Q. The flavor or the taste would be just the same, wouldn't it, so far as the flavor is concerned, but it would be stronger, you would get a concentrated taste in one instance, or flavor, where in the other you would get a milder, not concentrated?

A. No, you would not, because as explained before, if you dilute up that strong solution so-called and dilute it up with sugar and water, the only thing that you have taken out in the making of a molasses, you can never restore it back to the original odor, and if it were merely a concentration that would be possible.

Q. Shouldn't we say an accentuated one, rather than a concentrated one?

A. It would be both accentuated and changed.

Q. And you think that you couldn't in any proper sense at all get the cane flavor?

A. I shouldn't call it a cane flavor. The moment you do you are lost.

680 Q. What right have you to stop at the first process rather than the last one in determining the flavor?

A. If I manufacture maple syrup or maple sugar, what we call maple flavor—

Q. We are not talking about maple, but cane.

A. I used maple as a more familiar example to myself and others and because I have had some experience with the manufacture of maple and not with the other.

Q. Is there any substantial difference between the flavor that you get in the maple taffy, as we used to call it when we were boys and made it, and the sugar itself?

A. The what?

Q. The candy or taffy that you make out of the maple syrup and the sugar itself—isn't the flavor the same, although the process is carried further?

A. I don't think I ever made any maple taffy.

Q. You never did?

A. No sir.

Q. Well, what is the reason for calling the flavor a cane flavor at the first step in the process rather than in the last step of the process?

A. I wouldn't want to stop exactly at the first step, but I would certainly want to stop it before the flavor had been changed so as to be no longer recognizable.

Q. Well, what flavor?

A. The flavor that true cane syrup will have and the first cane concrete will have.

Q. You do really then want to stop at the end of the first process?

A. If you regulate your process so that the changes will be slower why, then you can perhaps change your method of evaporation and concentrate it still more and still have that distinctive flavor which you associate with true cane flavor.

681 Q. Now, that is just simply an arbitrary limitation on the flavor of the solution?

A. I don't think so.

Q. You stopped at the first stage I understood you instead of the third?

A. No, I don't think it is arbitrary.

Q. Where do you get your authority for doing it?

A. I think that would be the popular understanding of the term "cane flavor". You would have to stop with that popular understanding. I don't think any one would say that Black Strap Molasses, the lowest grade of molasses, had cane flavor, because it doesn't resemble in any way an original flavor, and if you dilute it up ever so much you can never get back what people understand by cane flavor, and if you did the same thing with maple you would get the same result, you could dilute it ever so much, you could never get it back and nobody would recognize the syrup by taste or flavor or odor as maple syrup.

682 Dr. T. B. WAGNER, being recalled, testified in behalf of the prosecution as follows:

(Examined by Mr. OLIN:)

Q. You get what is called molasses, don't you, by making the sugar out of the cane?

A. In some cases.

Q. Well, that is the usual way of doing, isn't it?

A. Yes, I believe so.

Q. Now, they get, do they not, what they call the first sugar, the second sugar, and the third sugar—they carry it that far?

A. In some sugar houses.

Q. And some don't carry it so far?

A. Others don't.

Q. If you stop with the first crystallization the product would be a high grade?

A. I don't think so—pardon me, for what purposes?

Q. For molasses?

A. I don't think so.

Q. At what process would you expect to get a high grade molasses?

A. The product as manufactured in modern sugar works, after the first crystallization, would not have a pleasant flavor.

Q. At what stage of crystallization, which one of these processes, the first, second or third, would you get what you call a fine grade of molasses?

A. Now, to tell you the actual conditions as I saw them in Louisiana, we don't make any edible molasses at all.

Q. You don't think you do?

A. I know we don't. In fact there was a situation at one time at a plantation where we ran short of packages and we ran, for want of room, at least four or five hundred thousand gallons into the ditch; it had no value.

Q. Are you speaking now of very recent years?

683

A. Oh, no, this was 1896, 1897, and I should say that to-day with the improved methods the results are still more along the lines I am speaking of; in other words, the sugar content is still more reduced in the molasses.

Q. That is, they seek to get more sugar out of it?

A. They must.

Q. And the more grades of sugar they get out of it the poorer would be the molasses?

A. Yes, the molasses are heated so often. The third molasses stand in the hot room for three or four months at a time, and it makes the product bitter, no longer sweet.

Q. Now, there is this difference then between what we call molasses and the so-called syrup, and I will leave out your product in that for the present, that in syrups they have all of the sugar and in the molasses they don't?

A. In the syrups you have a certain amount of sugar.

Q. Well, all there was in the original sap or juice, whatever was there, you haven't crystal-ized out the sugar?

A. I tried to make that plain. That part of it is actually not known that you speak of.

Q. I am not talking about that, I am talking about the qualities in syrups. You don't take out the sugar at all in making maple syrup?

A. I am speaking only of cane. I have no knowledge as to maple syrup, the manufacture.

Q. Or sorghum?

A. Or sorghum. We use sorghum in our business to a certain extent. I have no knowledge as to the manufacture.

Q. Now, as to this refiners' syrup, not as to the flavor, but that is made, as I understand from raw sugar?

A. Yes sir.

Q. That is, on some of these smaller plantations they don't
684 have refineries?

A. Yes.

Q. And they make what is called a raw sugar, particularly in the tropics, they don't seek, as I understand, to make a molasses when they do that?

A. No—well, let me see, I think they do in that case. No, I guess not.

Q. No, I guess not.

A. I don't know. Perhaps I don't understand you.

Q. Well, where they make this raw sugar that is afterwards refined they don't seek at the same time to make any molasses such as they do where they have a refinery and crystal-ize the sugar out and finally do it all up in one establishment?

A. No, in those cases they usually make rum out of the molasses.

Q. Yes, whatever it is, they don't make a molasses that is used on the table at all?

A. Very little. There is some amount of course.

Q. And the raw sugar contains a good many impurities, and they send that to the refinery?

A. Yes.

Q. And you get this refiners' syrup in the process that has been stated by Professor Chandler, and so on?

A. Yes sir.

Q. And we will leave the flavor of it to the experts?

A. If you will permit me, I would like to make a statement which Dr. Chandler didn't draw attention to yesterday, which has a bearing on the refiners' syrup and the flavor of it. The statement was made by Dr. Fischer that the bone-black which is used in filtrating the liquors imparts, if not a flavor, at least an increase of ash in the syrup. Now, if that were true, it wouldn't be possible for us to put a glucose on the market containing so little ash as it does.
685 Q. We filter our glucose, as Dr. Chandler said yesterday to me in discussion, over fully ten times as much bone-black as they do in sugar refineries. Now, if that brings the ash contents in the refiners' syrup up to eight or nine per cent., the glucose should contain fully ten per cent of ash.

Q. Does that answer it fully?

A. Of course it does, and more so. And now I will enlarge upon that point. The liquors in a sugar refinery are slightly alkaline and apt to dissolve out less of the mineral constituents of bone-black, whereas in the glucose factories the liquors are run over bone-black in an acid condition and are apt to extract a much greater part of the mineral constituents. So that statement does not appeal to me.

Q. Don't the analyses of refiners' syrup on the market show a high percentage of ash?

A. Well, Dr. Chandler quoted a very low one yesterday, two per cent., and he said that if a refiners' syrup contained such a high percentage as eight or nine per cent that it very likely would be due to the fact that they had mixed sugars in there at the time of refining; in other words, that they had beet sugars with cane sugars.

Q. Well, as I understand Dr. Chandler, not in his direct, but in his cross-examination, he didn't want to say that there wasn't some change produced in this refiners' syrup by reason of putting in the bone-black and running it through these two or three or four different processes.

A. He stated that the changes were due to the heat employed, to the repeated heating.

Q. Well, he didn't want to say to what it was due.

A. I understood him to say that the bone-black could not impart any flavor or alter it.

686 Q. I think his first testimony on direct examination was that it had no such effect at all, but after dinner I think on cross-examination he didn't want to leave it that way, but stated there might be a change produced, but he didn't know just what would cause it.

A. I believe he said that if the bone-black was not in first-class condition——

Q. No.

A. Yes, he did make a statement along those lines.

Q. He might have made that, but he made the other.

A. There might possibly be such a thing as an off syrup, off in flavor.

Dr. T. B. WAGNER, being recalled, testified in behalf of the defendant as follows:

(Examined by Mr. FAIRCHILD:)

Q. Doctor, what is your idea of a cane flavor?

A. I shall dispose of that with six words, or something like that, that I fully agree with Professor Chandler.

Mr. OLIN: That ends it?

A. Yes sir.

Q. You made a statement that the more sugar was taken out of the molasses the poorer it would be?

A. The molasses?

Q. Yes.

A. Well, I am only speaking of the refineries where they finish up the entire juice of the cane in their own plant.

Mr. OLIN: He did state that they didn't get the first or finest quality if they stopped with the first crystallization; then said if you carried it on further and far enough you would get a product that would be bitter.

687 A. No. There is certainly a misunderstanding about that.

Q. Go on and explain what you mean?

A. We have two distinct cases there, one is the sugar houses, where they run the exhausted juices right on the premises, that is done only in Louisiana, and the resulting molasses are not entitled to the name molasses at all, they are simply a watery extract of nitrogenous substances and a lot of ash mineral constituents from the cane, and that product is used solely for technical purposes, it is not put on the market as an edible product, nobody would think of eating it. Then we have to consider the sugar houses, as I said, principally the tropics, Cuba, Porto Rico, the Philippine Islands and Hawaii, where they make raw sugars and work the residue, the molasses, which may be a very fine product, into rum, by a process of distillation and ship the raw sugars into this country for refining purposes, from which we obtain the refinery syrup.

Testimony closed.

638 Thereupon the court continued the action from time to time until the 2nd day of March, 1909, at 2 P. M. at which time the cause was argued by counsel and submitted to the court for decision. On April 16th, 1909, the court made and filed its decision and order as follows, to wit:

(Title of Court and Cause.)

Memorandum of Decision.

By the COURT: In the consideration of the questions here presented for determination, the court should accord to the legislature the highest consideration, not condemning its action so long as any reasonable basis can be discovered for upholding the constitutionality of chapter 557 laws 1907. But if none can be discovered, the court must put the stamp of judicial disapproval upon the act.

If there be any fraud or deception in the sale of the article here in question, the case comes clearly within the rule of *Plumley v. Massachusetts*, 155 U. S. 461. In that case the supreme court upheld the right of the state to prescribe the conditions under which a wholesome food product, the subject of interstate traffic, could be sold in original packages. The decision was based on the ground that it is within the power of a state to exclude from its markets any food product so prepared as to cause it to look like an article of food in general use and thereby mislead the public into buying what it would not otherwise purchase.

The evidence convinces the court that the public generally understand a "syrup" to be the concentrated sap of a sugar producing plant. The term "corn syrup" naturally suggests that the product is a syrup produced from corn. Certainly the name carries no suggestion that it is produced by the action of acid on starch, which may be made from a score of different substances as well as from corn. But even if the product here in question were properly termed a syrup, that is not the controlling fact. As was said 689 of *oleomargarine*, "It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other." *Plumley vs. Massachusetts*, 155 U. S. 461, 475; 39 L. Ed. 223, 228. Even if this product be a syrup, the difference in the cost of producing it, if no other factor were involved, would make it a fraud to sell this article to the public under a name that induces the belief that it is procuring a syrup produced in the usual way by boiling down the sap of a sugar producing plant.

The fact that the product here in question has become a recognized article of commerce under the designation "corn syrup" does not affect the question we are considering, if its sale under this name does in fact mislead or deceive the public. *Crossman v. Lurman*, 192 U. S. 189; 24 Sup. Ct. Rep. 234, 238.

The question is not whether the term "corn syrup" is coming into general use, the question is whether this name deceives the public and leads it to buy that which it would not otherwise purchase. Whether the product be wholesome or unwholesome, whether the consumer have valid reasons or only unreasoning prejudices in regard to the matter, the public has a right to know, and the state the right to compel the disclosure of, what is contained in all food products offered to the consumer.

State vs. Aslesen, 52 N. W. 220, 221;

Stolz v. Thompson, 46 N. W. 410.

When the defendants established the fact that the public generally would not purchase the product if it were put out under the name of glucose (which is shown to be a proper designation), they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public. So that, even if the pails in which these defendants sold this product were the original packages of interstate commerce, the court concludes that
690 the case falls within the rule of *Plumley vs. Massachusetts*, supra, and that the statute in question is not an unwarranted interference with the right of the federal government to regulate interstate commerce.

It will be observed that the statute in question does not attempt to impose such unreasonable restrictions on the sale of the product as were considered in *Collins v. New Hampshire*, 171 U. S. 30; or to absolutely prohibit its sale, as was done in *Pennsylvania, Schollenberger v. Pennsylvania*, 171 U. S. 1; but leaves the producer and the merchant free to sell it, when properly labeled.

Nor did the passage of the national pure food law take from the state the power to regulate the sale of the product after it had become incorporated in and mingled with the mass of property of this state. The federal government has power to regulate the branding of articles of commerce so long as they are the subject of interstate commerce. But when the importer has so acted on the thing imported that it becomes incorporated into and mixed with the mass of property in this state, it loses its distinctive character as an article of commerce and becomes subject to all lawful regulations which the state may enact. This rule finds apt illustration in the following cases:

Welton v. Missouri, 1 Otto 275; 23 L. Ed. 347, 350;

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1167-8.

Any other application of the federal law would delegate to congress the power to regulate the internal affairs of the state and deprive it of all right to exercise its police powers in protection of the public.

It may well be doubted whether the pail in which each of these defendants sold this product could in any event be considered an original package of interstate commerce. In the decision on which the original package doctrine is based (*Brown v. Maryland*, 12 Wheat 419) Chief Justice Marshall limits the application of the doctrine to the property of the importer while remaining in his ware-
691 house in the original form or package in which it was imported. Speaking for the United States supreme court, Mr. Justice Brown has recently pointed out the fact that in all the cases which have arisen in that court where the original package doctrine was applied, "the packages were of such size as to exclude the idea that they were to go directly into the hands of the consumer." *Austin v. Tennessee*, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 138.

Upon reason and authority it would appear that the wooden case in which these pails were shipped into the state was the original package of interstate commerce, and that when this case was opened

and these pails taken out and mingled with other goods in the stores of the defendants they were not original packages, but goods subject in all ways to the regulations prescribed under the police powers of this state.

May v. New Orleans, 178 U. S. 496; 44 L. Ed. 1165, 1170.

Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 137.

The mere fact that such regulations may in some degree affect interstate commerce is not sufficient to condemn the act, if otherwise within the proper exercise of such power. Within the legitimate exercise of the police power the state may prescribe such labeling as may reasonably be necessary to protect its people from fraud or deception in the sale of food products.

The fact that the title to the act in question declares the law one to protect the public health does not conclude the courts. They may determine the fact and give the law effect according to its scope and tenor, even though that may not be in literal accord with the title of the act.

State v. Redmon, 114 N. W. 137, 141;

Field, J. in Powell v. Pennsylvania, 127 U. S. 678; 32 L. Ed. 253, 260.

As we have seen, there is such danger that the public may be misled and defrauded into buying a product which it would
692 not otherwise purchase, if the name "corn syrup" is used, as to suggest some reasonable necessity for a remedy, affordable only by legislative enactment, as to efficiently invite public attention thereto. Such being the case, it is primarily a legislative function to determine what means shall be adopted to protect the public. It is only when the boundaries of reason have been so clearly exceeded as to violate some constitutional prohibition, express or implied, that the court has any power to interfere with the exercise of this legislative power. State v. Redmon, 114 N. W. 137. When the state acts within these bounds, the state does not deprive any citizen of liberty or property without due process of law.

Wilkinson v. Rahrer, 140 U. S. 545; 35 L. Ed. 572, 574;

Austin v. Tennessee, 179 U. S. 343; 21 Sup. Ct. Rep. 132, 134.

The constitution does not confer on any man the right to keep secret the composition of the substance which he offers to the public as a food product. To compel him to disclose its composition does not deprive him of his property without due process of law (State v. Aslesen, 52 N. W. 220, 221; Stolz v. Thompson, 46 N. W. 410, 411), even though it may prevent him from using a trade name. State v. Tetu, 107 N. W. 953.

He may be compelled to sell the product for what it actually is, upon its own merits, and is not entitled to the benefit of any additional market value which may be imparted to it by resorting to any means which shall make it resemble, or sell for, or in the place of,

any well known food product. *Plumley v. Massachusetets*, 155 U. S. 461, 475; 39 L. Ed. 223, 228.

In *People v. Harris*, 97 N. W. 402, the only question presented to the court was whether the legislature had prohibited the sale of glucose under the name "corn syrup." The state had by stipulation and concession taken out of the case practically all the questions before this court for consideration. As no constitutional questions were discussed in that case, it throws little light upon the constitutional questions under consideration in the case at bar.

The court concludes that none of the constitutional rights of the defendants have been violated by chapter 557 laws 1907.

Turning to the question of whether the reference to the standards promulgated by the secretary of agriculture is a delegation of legislative power, the case would seem to fall squarely within the rule of *Butterfield v. Stranahan*, 192 U. S. 470, 494; 24 Sup. Ct. Rep. 349, 355; approved in *St. Louis Ry. Co. v. Taylor*, 210 U. S. 281, 286-7, and *Cooperville Creamery Co. v. Lemon*, 163 Fed. Rep. 145.

But the question of the effect of reference to these standards is not involved in the cases at bar. Assuming that this reference to these standards is a delegation of legislative power, and giving the act that construction which the court must give it when its constitutionality is questioned, it is not reasonably clear that the legislature would not have enacted the portions of chapter 557 laws 1907 relating to mixed syrups, without that part which contains the reference to the standards. The part of the act relating to mixed syrups is complete in itself. It prescribes exactly the label required for each different mixture and defines and classifies these mixtures without any reference to the standards or to the preceding part of the section. Even if the part of the act relating to unmixed syrups be void (a conclusion which the court has not arrived at), the balance of the act is independent of these provisions, and valid and enforceable.

The court concludes that the portion of chapter 557 laws 1907 here under consideration is a valid constitutional enactment. Under the undisputed evidence the defendants are guilty of the offenses charged against them. Counsel for the defendants may produce them before the court of April 26th, 1909, at 2 P. M. to receive sentence, at which time the court will consult with counsel as to the necessity of formal findings.

Dated April 16, 1909.

By the COURT:

On April 26th, 1909, at 2 P. M. the defendant appeared before the court for sentence as in the decision and order required. Whereupon the court proceeded to and did convict the defendant of the charge in the complaint and warrant set out, and sentenced him to pay a fine of \$25.00 together with the costs of the action, amounting in all to \$51.71, and in default of such payment that he be confined in the county jail of Dane County until such fine and costs are paid, not exceeding sixty days.

It being made thereafter, upon said 26th day of April, 1909, to appear to the court that a writ of error in said action had on said 26th day of April, 1909, been duly issued out of the Supreme Court for a review of the judgment and sentence of the court, returnable at the August term of said court for 1909, and the defendant having filed in the said Circuit Court his bond duly approved by the court in the sum of \$250.00 as directed by the court conditioned upon the defendant appearing in said supreme court during the said August term thereof and prosecuting said action to a final decision and judgment under such writ of error and abiding the judgment and sentence of the said court thereon, and in the mean time keeping the peace and being of good behavior, the court did stay the execution of its said judgment and sentence until the final hearing and decision of the said supreme court under said writ of error and discharged the defendant in the mean time.

It is hereby stipulated and agreed by and between the parties to this action, by their respective attorneys, that the following named exhibits shall be returned by the clerk of said circuit court to the clerk of the supreme court as a part of the record herein, either party to be at liberty to refer to the same upon the argument of said cause in the supreme court:

Exhibits B, C, D, E and F. Exhibit No. 1, Exhibit 1a, Exhibit 1b, Exhibit 1c, Exhibit 1d, Exhibits 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16; also Exhibits 28, 36, 37 and 156.

And because the foregoing evidence, offers, rulings, orders, exceptions, opinions and decisions do not appear of record herein, I, the undersigned, the circuit judge who tried said action, have, on due notice, settled and signed this bill of exceptions to the end that the same may be made part of the record herein, and I
695 hereby certify that this bill of exceptions contains all the evidence given on both sides and received by the court in said action.

Dated this 27th day of Sept., 1909.

E. RAY STEVENS,
Judge Ninth Judicial Circuit.

696

EXHIBIT A

is an invoice of 50 bbls. "Crystal 3 Star Glucose, 32720 lbs. @ 2.14, \$700.21.

Sold by Corn Products Manufacturing Company to Teckemeyer Candy Company, Madison, Wisconsin.

This Exhibit will be found in Bill of Exceptions in State vs. McDermott, with which this case was tried.

697

EXHIBIT 21

is an advertisement of Karo Corn Syrup in the Wisconsin State Journal, Madison, November 20, 1907, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

698

EXHIBIT 22

is an advertisement of Karo Corn Syrup, in The Madison Democrat, February 11, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

699

EXHIBIT 23

is an advertisement of Karo Corn Syrup in The Madison Democrat, February 20, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

700

EXHIBIT 24

is an advertisement of Karo Corn Syrup in The Madison Democrat, February 27, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

701

EXHIBIT 25

is an advertisement of Karo Corn Syrup in The Madison Democrat, March 19, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

702

EXHIBIT 26

is an advertisement of Karo Corn Syrup in The Madison Democrat, April 2, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

703

EXHIBIT 27

is an advertisement of Karo Corn Syrup in The Madison Democrat, April 9, 1908, the original of which is attached to the bill of exceptions in State of Wisconsin vs. George McDermott.

704

EXHIBIT 34.

(Omitting Immaterial Parts.)

Circular No. 19.

UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY.

Standards of Purity for Food Products.

Superseding Circulars Nos. 13 and 17.

Supplemental Proclamation.

Referring to Circular No. 13 of this Office, dated December 20, 1904, and to Circular No. 17 of this Office, dated March 8, 1906,

the following food standards are hereby established as superseding and supplemental to those proclaimed on the dates above named.

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., June 26, 1906.
1508—No. 19—06—1.

Letter of Submittal.

The Honorable the Secretary of Agriculture.

SIR: The undersigned, representing the Association of Official Agricultural Chemists of the United States and the Interstate Food Commission, and commissioned by you, under authority given by the act of Congress approved March 3, 1903, to collaborate with you "to establish standards of purity for food products and to determine what are regarded as adulterations therein", respectfully report that they have carefully reviewed, in the light of recent investigations and correspondence, the standards earlier recommended by them and have prepared a set of amended schedules, in which certain changes have been introduced for the purpose of securing increased accuracy of expression and a more perfect correspondence of the chemical limits to the normal materials designated, 705 and from which standards previously proclaimed for several manufactured articles have been omitted because of the unsatisfactory condition of trade nomenclature as applied thereto; and also additional schedules of standards for ice creams, vegetables and vegetable products, tea and coffee. They respectfully recommend that the standards herewith submitted be approved and proclaimed as the established standards, superseding and supplementing those established on December 20, 1904, and March 8, 1906.

The principles that have guided us in the formulation of these standards are appended hereto.

The several schedules of additional standards recommended have been submitted, in a tentative form, to the manufacturing firms and the trade immediately interested, and also to the State food-control officials for criticism.

Respectfully,

WILLIAM FREAR,
EDWARD H. JENKINS,
M. A. SCOVELL,
H. A. WEBER,
H. W. WILEY,

*Committee on Food Standards, Association
of Official Agricultural Chemists.*
RICHARD FISCHER,
Representing the Interstate Food Commission.

Washington, D. C. June 26, 1906.

Food Standards.

C. Sugars and Related Substances.

a. Sugar and Sugar Products.

Sugars.

- 706 1. Sugar is the product chemically known as sucrose (Saccharose) chiefly obtained from sugar cane, sugar beets, sorghum, maple and palm.

* * * * *

4. Masecuite, melada, mush sugar, and concrete are products made by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semi-solid consistence, and in which the sugar chiefly exists in a crystalline state.

Molasses and Refiners' Sirup.

1. Molasses is the product left after separating the sugar from masecuite, melada, mush sugar, or concrete, and contains not more than twenty-five (25) per cent of water and not more than five (5) per cent of ash.

2. Refiners' sirup, treacle, is the residual liquid product obtained in the process of refining raw sugars and contains not more than twenty-five (25) per cent of water and not more than eight (8) per cent of ash.

Sirups.

1. Sirup is the sound product made by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar.

2. Sugar-cane sirup is sirup made by the evaporation of the juice of the sugar-cane or by the solution of sugar-cane concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

3. Sorghum sirup is sirup made by the evaporation of sorghum juice or by the solution of sorghum concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

4. Maple sirup is sirup made by the evaporation of maple sap or by the solution of maple concrete, and contains not more than thirty-two (32) per cent of water and not less than forty-five hundredths (0.45) per cent of maple sirup ash.

5. Sugar sirup is the product made by dissolving sugar to the consistence of a sirup and contains not more than thirty-five (35) per cent of water.

b. Glucose Products.

1. Starch sugar is the solid product made by hydrolizing starch or a starch-containing substance until the greater part of the starch is converted into dextrose. Starch sugar appears in commerce in two forms, anhydrous starch sugar and hydrous starch sugar. The former, crystallized without water of crystallization, contains not less than nine-five (95) per cent of dextrose and not more than eight-tenths (0.8) per cent of ash. The latter, crystallized with water of crystallization, is of two varieties—70 sugar, also known as brewers' sugar, contains not less than seventy (70) per cent of dextrose and not more than eight-tenths (0.8) per cent of ash; 80 sugar, climax or acme sugar, contains not less than eighty (80) per cent of dextrose and not more than one and one-half (1.5) per cent of ash.

The ash of all these products consists almost entirely of chlorids and sulphates.

2. Glucose, mixing glucose, confectioners' glucose, is a thick, sirupy colorless product made by incompletely hydrolizing starch, or a starch-containing substance, and decolorizing and evaporating the product. It varies in density from forty-one (41) to forty-five (45) degrees Baume at a temperature of 100° Fahr. (37.7° C.), and conforms in density, within these limits, to the degree Baume it is claimed to show, and for a density of forty-one (41) degrees Baume contains not more than twenty-one (21) per cent and for a density of forty-five (45) degrees not more than fourteen (14) per cent of water. It contains on a basis of forty-one (41) degrees Baume not more than one (1) per cent of ash, consisting chiefly of chlorids and sulphates.

(Here follow labels marked pages 708 to 726.)

2½ LBS. NET WEIGHT



TRADE MARK
REGISTERED

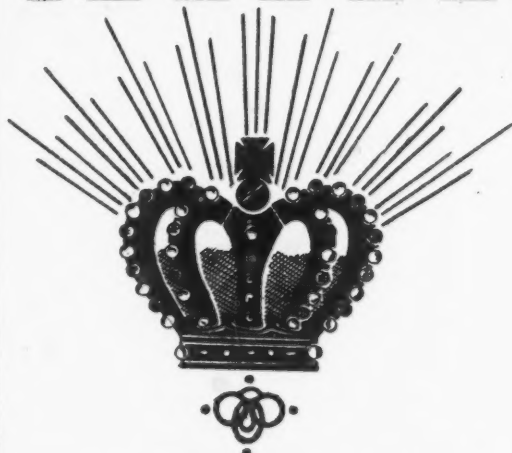
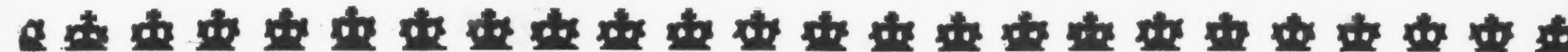


2½ LBS. NET WEIGHT

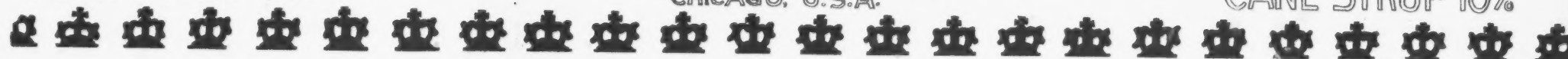


Copy of
Exhibit
131

708



COMPOUND
CORN SYRUP 90%



Copy of
EXHIBIT 132.

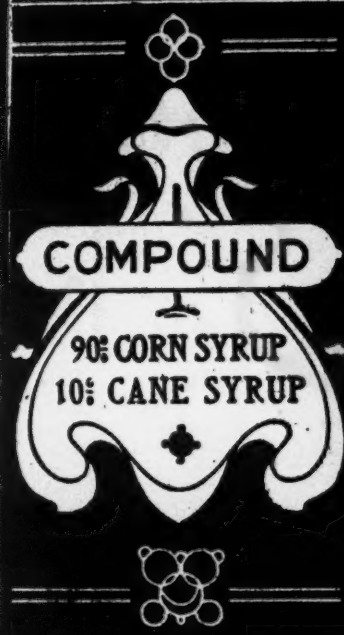
GOLDEN CROWN



CORN SYRUP
ILLINOIS SUGAR REFINING CO.
CHICAGO, U.S.A.



COMPOUND
CANE SYRUP 10%



CLIMAX CORN SYRUP

ILLINOIS SUGAR REFINING CO.
CHICAGO.



*copy
Exhibit
133*

710

CHOICE QUALITY
FULL WEIGHT

Universal

CORN SYRUP

ILLINOIS SUGAR REFINING CO.

CHICAGO U.S.A.

COMPOUND
CORN SYRUP 90%
CANE SYRUP 10%

Copy of
EXHIBIT 134.

711



COMPOUND
CORN SYRUP 90%



ILLINOIS SUGAR REFINING CO.
CHICAGO, U.S.A.



COMPOUND
CANE SYRUP 10%

Copy of
EXHIBIT 135.



COMPOUND
90% CORN
10% CANE

Copy of

EXHIBIT 136.

713



DELICIOUS
WHOLESOME
PURE



ROYAL



CORN SYRUP

DAVENPORT SYRUP REFINERY
DAVENPORT IOWA.



CHOICE
QUALITY
FULL WEIGHT



COMPOUND
90% CORN SYRUP
10% CANE SYRUP

GUARANTEED UNDER
THE FOOD & DRUGS
ACT, JUNE 30, 1906.
SERIAL NO. 311.

3 POUNDS

NET WEIGHT



REX CORN SYRUP,
WITH CANE FLAVOR, IS PREPARED
FROM 90% OF CORN SYRUP AND
10% OF REFINERS' SYRUP.



CORN SYRUP

WITH CANE FLAVOR
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA.

Copy of

EXHIBIT 138.

3 POUNDS NET WEIGHT

Santee
BRAND



GUARANTEED TO COMPLY WITH THE
FOOD & DRUGS ACT, JUNE 30, 1906.
SERIAL NO. 311.



THIS SYRUP IS PURE AND WHOLESOME
AND PREPARED FROM 90% CORN SYRUP
AND 10% REFINERS' SYRUP.

Copy of

EXHIBIT 139.

716

2 POUNDS NET WEIGHT



GUARANTEED TO COMPLY WITH
THE FOOD AND DRUGS ACT.
JUNE 30, 1906. SERIAL NO. 311



ARGO BRAND CORN SYRUP

WITH CANE FLAVOR

CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA.



THIS SYRUP IS PURE AND WHOLESOME
AND PREPARED FROM 90% CORN
SYRUP AND 10% REFINERS' SYRUP.



Copy of
EXHIBIT 140.



Copy of

EXHIBIT 141.

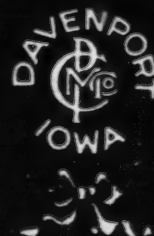
718

ATLAS

2 POUNDS

NET WEIGHT

GUARANTEED TO COMPLY
WITH THE FOOD AND DRUGS
ACT, JUNE 30, 1906
SERIAL NO. 311



CORN SYRUP

WITH CANE FLAVOR

THIS SYRUP IS PURE AND
WHOLESOME AND PREPARED
FROM 90% CORN SYRUP AND
10% REFINERS SYRUP

Copy of
EXHIBIT 142.

719



10 Cents



10 Cents

CORN PRODUCTS CO.
CHICAGO, U. S. A.

COMPOUND
85 CORN SYRUP
15 CANE SYRUP

Copy of
EXHIBIT 143.

720

90%
CORN SYRUP
10 %
REFINERS'
SYRUP

100% GRAIN
CLOVER BRAND

CORN SYRUP
WITH
CANE FLAVOR

PACKED BY
CORN PRODUCTS REFINING CO. *Manufacturing Co.*
GREEN BAY, WIS. *Davenport, Iowa.*
FOR
JOANNES BROS. Co.
GREEN BAY, WIS.

GUARANTEED ~~100% GRAIN~~ PRODUCTS
AS PACKED ~~BY CORN PRODUCTS REFINING CO.~~ WITH THE
FOOD AND DRUGS ACT, JUNE 30, 1906.
~~REGISTERED UNDER~~ SERIAL NO. 2977 311

Copy of

Exhibit 154

721

2 POUNDS NET WEIGHT

KARO
CORN SYRUP
WITH CANE FLAVOR
IS GUARANTEED BY THE
CORN PRODUCTS REFI-
NING CO. TO COMPLY
WITH THE FOOD AND
DRUGS ACT, JUNE 30,
1906. REGISTERED
UNDER SERIAL
NO. 2317.

10 Cents

Karo
(TRADE MARK REGISTERED)

CORN SYRUP

WITH CANE FLAVOR

KARO
CORN SYRUP
WITH CANE FLAVOR
IS PURE AND
WHOLESOME AND
IS PREPARED FROM
85% OF CORN SYRUP
AND 15% OF
REFINERS'
SYRUP.

10 Cents

CORN PRODUCTS REFINING CO.
NEW YORK, N.Y.

722

copy of

Exhibit 153

NET WEIGHT

COMPOUND

CORN SYRUP

PACKED BY

WITH CANE FLAVOR

DAVENPORT REFINERY

CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA

DAVENPORT, IA

10% REFINERS SYRUP

90% CORN SYRUP

EXHIBIT 162.

EXHIBIT 163.

Cupid Brand Corn Syrup Label.

(Fancy.)

(This exhibit will be found in bill of exceptions in State vs. McDermott, with which this case was tried.)

**90% CORN
SYRUP**

2½ POUNDS

DIAMOND DRIPS

10

NET WEIGHT



**MANUFACTURED BY
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT, IOWA**

CORN SYRUP

**WITH CANE FLAVOR
PACKED EXPRESSLY FOR**

**JOHN HOFFMANN & SONS CO.
MILWAUKEE, WIS.**

Copy of

EXHIBIT 184.

DIAMOND DRIPS

2½ POUNDS

**10% REFINERS'
SYRUP**

NET WEIGHT



CORN SYRUP

WITH CANE FLAVOR
PACKED EXPRESSLY FOR

JOHN HOFFMANN & SONS CO.
MILWAUKEE, WIS.

SERIAL NO. 311.
GUARANTEED UNDER THE
FOOD AND DRUGS ACT,
JUNE 30, 1906.

725



COMPOUND
DELICIOUS
WHOLESOME
PURE

90% CORN SYRUP

GUARANTEED UNDER THE FOOD
AND DRUGS ACT, JUNE 30, 1906
SERIAL NO. 31F



ROYAL



ROYAL CORN SYRUP
IS COMPOSED OF THE FOLLOWING
INGREDIENTS AND NO
OTHER CORN SYRUP AND
SUGAR IT IS OF THE
HIGHEST QUALITY AND PREPARED
ACCORDING TO U. S. STANDARDS



CORN SYRUP

PACKED BY
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT IOWA

Copy of

EXHIBIT 185.

GUARANTEED UNDER THE FOOD
AND DRUGS ACT, JUNE 30, 1906
SERIAL NO. 311

ROYAL



ROYAL CORN SYRUP IS COM-
POSED OF THE FOLLOWING IN-
GREDIENTS AND NONE OTHER
CORN SYRUP AND REFINERS'
SYRUP IT IS OF THE HIGHEST
QUALITY AND PREPARED AC-
CORDING TO U. S. STANDARDS.

CORN SYRUP

PACKED BY
CORN PRODUCTS MANUFACTURING CO.
DAVENPORT IOWA



CANE FLAVORED
CHOICE
QUALITY

3 ~~2 1/2~~ LBS. NET WEIGHT

10% REFINERS' SYRUP

727

EXHIBIT No. 167.

Cupid Fancy Table Syrup Label.

Manufactured by Warner Sugar Refining Co. Waukegan, Ill.
Packed expressly for Roundy, Peckham & Dexter Co.

(This exhibit will be found in bill of exceptions in State vs. McDermott, with which this case was tried.)

728

EXHIBIT No. 213.

Karo Corn Syrup Label.

Large 50 cents size.

(This exhibit will be found in bill of exceptions in State vs. McDermott, with which this case was tried.)

729 & 730

EXHIBIT 144.

John Orr's Sons,
Wholesale Grocers.

STEUBENVILLE, OHIO, 1/12 '97.

Mess. Bradshaw & Wait, Chicago, Ills.

GENTS: Please quote prices on car loads and less, of Standard Corn Syrup and Flavored Corn Syrup. Name price delivered here. Please send us by mail samples of the grade usually sold here, which you quote.

898*

81/104*

Yours truly,

11c. less fgt.*

JOHN ORR'S SONS,
Per R.

EXHIBIT 145.

DETROIT, MICH., Jan. 15, 1897.

Messrs. Bradshaw & Wait, Chicago, Ill.

E 84/119*

GENTS: Please ship for us to C. T. Cook, Marshall, Mich., via
M. C. R. R. 1 (one) Bbl. Corn Syrup, — oblige

Yours truly,

W. J. GOULD & CO.
A. H. BOZLEY.

731-733

EXHIBIT 146.

Office of E. Bierhaus & Sons,
Wholesale Grocers, Pork, Egg and Poultry Packers.

VINCENNES, IND., Jan. 22, '97.

Messrs. Bradshaw & Waite, Chicago, Ill.

GENTLEMEN: Wire us in the morning your very lowest price on one or two cars of Corn Syrup. We must have your bottom price. We have been offered Syrup from other refineries at 10 cts. per Gal. Could you not do any better for us? In case we give you an order direct, would you give us the advantage of the regular brokerage?

Awaiting your wire, we are

Yours truly,
10c*

E. BIERHAUS & SONS.

EXHIBIT 147.

John J. Kerby,
Office, 50 Shelby Street.

DETROIT, MICH., Jan. 5th, 1897.

Messrs. Bradshaw & Waite, Chicago, Ill.

GENTLEMEN: Will you consider 10c. for corn syrup, freight prepaid or less freight to Detroit?

Messrs. Grones & Brehmer are in the market for a car, and the Edward Henkel Co. and Moran, Fitzsimons Co. would probably buy a car at this figure.

Yours truly,

JOHN J. KERBY.
Per E. O. B.

Dictated by J. J. K.

EXHIBIT 148.

Quoted at length on page 232 of this bill of exceptions.

[* In pencil in copy.]

734 & 735

EXHIBIT 149.

Charles R. Hurd,
Merchandise Broker and Commission Merchant,
1525 and 1527 Market St.

DENVER, COLO., Jan. 19th, 1897.

Messrs. Bradshaw & Wait, Chicago, Ill.

DEAR SIR: Your letter of the 15th inst. is received.

Since I last wrote you Corn Syrup has been offered by Farrel & Co. at 8 cents on the River.

Yours truly,

C. R. HURD.

EXHIBIT 150.

J. M. Paver & Co.,
Merchandise Brokers.

3:15 P. M.

INDIANAPOLIS, IND., Jan. 27, 1897.

Mess. Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: We have been waiting for two or three days for friend Smith to return from Louisville and Cincinnati. We have the following offer from Geo. W. Stout.

One car load of corn syrup at 9c. delivered here. On receipt of this kindly wire us confirmation of same. While we know that Mr. Smith when here gave us a 10c. price we are compelled to make this offer to you and wait your decision. Let us know by wire without delay.

Yours truly,

J. M. PAVER & CO.

736

EXHIBIT 151.

J. M. Paver & Co.
Merchandise Brokers.

3:00 P. M.

INDIANAPOLIS, IND., Jan. 28, 1897.

Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: We have your day message reading as follows: "Decline any offer for corn syrup under ten cents" in reply to our letter of last night to you making this request. Of course we readily understand now since we have made some further inquiry the cause of this bidding. It appears that Hoyt & Co., of Chicago, are quoting to the trade Corn Syrup at 9½c. Our jobbers have been receiving reports from their salesmen for some time that Hoyt was doing this and hence our offer to you last night on the car load for Stout. We readily understand also that the freight to this point

necessarily figures in the price, and there are some other things that figure in the cost of an article that possibly might be just as well unsaid as said. Hoping that we may be able to do some business with you in the near future, we remain,

Yours truly,

J. M. PAVER & CO.

737

EXHIBIT 152.

J. M. Paver & Co.,
Merchandise Brokers.

3:30 P. M.

INDIANAPOLIS IND., Jan. 28, 1897.

Mess. Bradshaw & Wait, Chicago, Ill.

GENTLEMEN: Referring to our above letter we have just had an interview with Mr. Geo. W. Stout and he desires us to renew his offer on car load of Corn Syrup at 9½c. delivered here, including 30 Bbls. and 20 half Bbls. small car of 40 Bbls. On receipt of this kindly wire us your decision. We have been working hard on him today to get his ideas up to yours but it seems an impossibility to move him.

Awaiting your reply, we remain,

Yours truly,

J. M. PAVER & CO.

P. S.—Style of stencil enclosed.

EXHIBIT 153.

Welch & Eason,
Wholesale and Retail Dealers in Fine Groceries.

CHARLESTON, S. C., 11/11/99.

Mr. Jno. F. Bradshaw, Chicago, Ill.

DEAR SIR: We are in receipt of your favor of the 7th inst. quoting us Fancy Grade Light Color Corn Syrup at 18½c. in barrels, and \$1.70 per case of three pound cans, delivered here. We presume that these prices are based on carload rate of freight. We do not know that we could use a carload of it, as we have considerable stock on hand and the trade here is pretty well supplied. Kindly send us a sample and say whether you will sell us less than a carload and if so how many cases at your delivery price as quoted. We will take some of it subject to approval of sample and will write you or wire you immediately upon receipt of the above desired information, as to the quantity you can sell. Kindly let us know also what quantity a carload will contain.

738

Very truly yours,

WELCH & EASON.

739 *Exhibits Identified in Testimony of John W. Bradshaw, but Not Marked with Separate Exhibit Numbers.*

Letters from W. J. Gould & Co., Wholesale Grocers, Detroit, Mich., to Bradshaw & Wait, Chicago.

No. 1.

DETROIT, MICH., *Jan'y 20th*, 1897.

Messrs. Bradshaw — Wait, Chicago. E 84/131*

GENTLEMEN: You may ship for our account to L. A. Phelps, Caro, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

To Parsons & Holt, St. Charles, Mich., via M. C. R. R. 1 Bbl. Corn Syrup.

To J. W. Pew & Son, Montpelier, Ohio, via Wabash R. R. to Montpelier, Ohio, 1 bbl. Corn Syrup. Please stencil formula on bbl.

To M. E. Curtis, Bog Rapids, Mich., via Chicago & West. Michigan R. R. 1 Bbl. Corn Syrup and oblige

Very truly yours,

W. J. GOULD & CO.
O. H. B.

No. 2.

DETROIT, MICH., *Jan'y 27th*, 1897.

Messrs. Bradshaw & Wait, Chicago. E 84/139*

GENTLEMEN: Please ship for our account to Messrs. B. F. Brenneman & Son, Columbia City, Ind., via Wabash R. R. 5 Bbls. Corn Syrup.

Please brand this syrup "Rock Candy," there being no law in Indiana to prohibit it.

Prompt shipment of the above will greatly oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

[* In pencil in copy.]

740 & 741 *Exhibits Identified in Testimony of John W. Bradshaw,
but Not Marked with Separate Exhibit Numbers.*

No. 3.

DETROIT, MICH., Jan'y 23, 1897.

Messrs. Bradshaw & Wait, Chicago.

130*

84/131*

GENTLEMEN: You may ship for our account to Savage & Durfee,
Paulding, Ohio, 1 Bbl. Corn Syrup. Please stencil formula on Bbl.
Very truly yours,

E 84/33*

W. J. GOULD & CO.
A. H. B.

Via Wabash.

No. 4.

130*

84/132*

DETROIT, MICH., Jan'y 16th, 1897.

Messrs. Bradshaw & Wait, Chicago.

E 84/133*

GENTLEMEN: You may ship for our account to J. Jenks & Co.,
Sand Beach, Mich., Grand Trunk R. R. to Port Huron via F. &
P. M. R. R. to Sand Beach, 2 Bbls. Corn Syrup.

Also to I. Rezek, Port Austin, G. T. R. R. to Port Huron, via
F. & P. M. R. R. to Port Austin, 1 Bbl. Corn Syrup, and oblige

Very truly yours,

W. J. GOULD & CO.
A. B.

No. 5.

130*

DETROIT, MICH., Jan'y 16th, 1897.

Messrs. Bradshaw & Wait, Chicago.

56*
E/84/121* 542*

GENTLEMEN: Please ship for our account to Messrs. Davy & Co.,
Evart, Mich., 2 Bbls. Corn Syrup, and oblige,

Very truly yours,

552*
W. J. GOULD & CO.
A. B.

[* In pencil in copy.]

742 & 743 *Exhibits Identified in Testimony of John H. Bradshaw
but not Marked with Separate Exhibit Numbers.*

No. 6.

130.†

DETROIT, MICH., *Jany. 8th, 189-*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Chadwick, Rans-
burg & Co., Pleasant Lake, Ind., via L. S. & M. S. R. R. 1 Bbl. Corn
Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.

E 84/121.†

C. & G. T.†

No. 7.

130 84/110.†

DETROIT, MICH., *Jany. 7th, 1897.*

Messrs. Bradshaw & Wait, Chicago.

E 84/110.†

GENTLEMEN: You may ship for our account to Jas. Lowry, Te-
cumseh, Mich., via L. S. & M. S. R. R. 1 Bbl. Corn Syrup, and
oblige

Very truly yours,

W. J. GOULD & CO.

A. H. B.

84/06.†

No. 8.

DETROIT, MICH., *Jany. 6th, 1897.*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Fred Schu-
macher, Petersburg, Mich. via L. S. & M. S. R. R. 1 Bbl. Corn Syrup

Very truly yours,

W. J. GOULD & CO.,
Per CRUSOE.

84/110.†

E 84/106.†

No. 9.

130. 84/101.†

E 84/106.†

DETROIT, MICH., *Jany. 6th, 1897.*

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account to B. R. Des Jardins,
Alpena, Mich., via M. C. R. R., 2 Bbls. Corn Syrup. Prompt ship-
ment will oblige.

Very truly yours,

W. J. GOULD & CO.

[† In pencil in copy.]

744 & 745 *Exhibits Identified in Testimony of John H. Bradshaw,
but not Marked with Separate Exhibit Numbers.*

No. 10.

DETROIT, MICH., *Jany. 8th, 1897.*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to W. F. Ehlers, Deford, Mich., 1 Bbl. Corn Syrup via Grand Trunk R. R. via Inlay City, P. O. & N. R. R. to Deford.

Yours very truly,

W. J. GOULD & CO.

130/84/111. E 84/113.†

No. 11.

DETROIT, MICH., *Jany. 13th, 1897.*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for us to Amphlett, Sanderson & Co., Ionia, Mich., 1 Bbl. Corn Syrup, and oblige

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/118.†

No. 12.

DETROIT, MICH., *Jany. 9th, 1897.*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to W. C. Walters, Mason, Mich., 1 Bbl. Corn Syrup, via M. C. R. R. and oblige

Very truly yours,

W. J. GOULD & CO.

54 E 84/113†

No. 13.

DETROIT, MICH., *Jany. 11th, 1897.*

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: You may ship for our account to Smith & Co., Marine City, Mich. via G. T. R. R. to Port Huron, Mich.

1 Bbl. Corn Syrup.

Yours truly,

W. J. GOULD & CO.

E 84/113.†

[† In pencil in copy.]

746 *Exhibits Identified in Testimony of John H. Bradshaw, but not Marked with Separate Exhibit Numbers.*

No. 14.

DETROIT, MICH., Jany. 14th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to G. W. Kroll, Marcellus, Mich., via C. & G. T. R. R., $\frac{1}{2}$ Bbl. Corn Syrup.

To P. F. Stettiner, Cassopolis, Mich. via C. & G. T. R. R. 1 Bbbl. Corn Syrup. Prompt shipment will oblige.

Very truly,

W. J. GOULD & CO.
A. H.

E 84/119.†

No. 15.

DETROIT, MICH., Jany. 29th, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: Please ship for our account to Grace Bros., Marshall, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

Yours truly,

W. J. GOULD & CO.
A. H. B.

E 84/140.†

No. 16.

DETROIT, MICH., Jany. 27th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account via C. & G. T. R. R. to L. T. Clark, Climax, Mich., 1 Bbl. Corn Syrup.

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/139.†

747 & 748 *Exhibits Identified in Testimony of John H. Bradshaw, but not Marked with Separate Exhibit Numbers.*

No. 17.

130/84/133.†

DETROIT, MICH., Jany. 26th, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to Dean & Eyster, Ionia, Mich., 1 Bbl. Corn Syrup.

[† In pencil in copy.]

To S. F. McKay, Battle Creek, Mich. via C. & G. T. R. R. 1 Bbl. Corn Syrup.

Prompt shipment will oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

E 84/138.†

No. 18.

130.†

DETROIT, MICH., *Jany. 23rd*, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account, via M. C. R. R. to Preston & Collins, Fostoria, Mich. 1 Bbl. Corn Syrup and oblige.

Very truly yours,

W. J. GOULD & CO.
A. H. B.

E 84/133.†

No. 19.

130.†

DETROIT, MICH., *Jany. 19th*, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to J. D. Powers, Eaton Rapids, Mich., via M. C. R. R., ½ Bbl. Corn Syrup, and oblige

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/125.†

749 & 750 *Exhibits Identified in Testimony of John H. Bradshaw, but not Marked with Separate Exhibit Numbers.*

130.†

No. 20.

DETROIT, MICH., *Jany. 19th*, 189-.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: You may ship for our account to W. F. Ehlers, De-ford, Mich. Grand Trunk R. R. via Imlay City P. O. & N. to De-ford, 1 Bbl. Corn Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.
A. H.

E 84/125.†

[† In pencil in copy.]

No. 21.

130.†

DETROIT, MICH., *Jany. 16th*, 1897.

Messrs. Bradshaw & Wait, Chicago.

GENTLEMEN: Please ship for our account to Fred Lincoln & Son, Lapeer, Mich., via M. C. R. R., 1 Bbl. Corn Syrup, and oblige.

Very truly yours,

W. J. GOULD & CO.
A. B.

E 84/121. 552.†

No. 22.

130.†

DETROIT, MICH., *Jany. 29th*, 1897.

Messrs. Bradshaw & Wait, Chicago, Ills.

GENTLEMEN: Please ship for our account to the Michigan State Prison, Jackson, Mich., via M. C. R. R., 1 Bbl. Corn Syrup.

Very truly,

W. J. GOULD & CO.
A. H. B.

E 84/140.†

751

EXHIBIT 165.

In Amendment No. 7 to Tariff No. 127, Item No. 112, issued May 25, 1900, effective May 30, 1900, the following item appears:

"Glucose, Corn Syrup, Grape Sugar and Jelly, straight or mixed carloads, minimum weight 30,000 lbs."

In Tariff No. 153, issued March 30, 1901, effective April 6th, Item No. 34 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

By Tariff No. 168, issued October 23, 1902, effective Oct. 29, 1902, Item No. 43 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

Tariff No. 181, issued December 15, 1903, effective January 1, 1904, Item No. 40, reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

Tariff No. 206, issued December 4, 1905, effective December 15, 1905, Item No. 54, reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 30,000 lbs."

[† In pencil in copy.]

Tariff No. 216, issued January 3, 1907, effective February 11, 1907, Item No. 162 reads:

"Glucose, Glucose Jelly, Grape Sugar, Corn Syrup, Sugar Syrup, Sorghum Syrup and Molasses, straight or mixed carloads, minimum weight 40,000 lbs."

752

EXHIBIT 168.

References Showing the Continuous Use of the Term Sirup to Designate Solutions of Sugar Made from Starch.

- 1813. Berard. Bull. Sec. d'Enc. XII, 63.
"Starch sugar and sirup."
- 1813. Bouriat. Bull. Sec. d'Enc. XII, 14 & XIII, 15, 17.
"Report on the Starch Sirups, etc. and potato sirup."
- 1816. Dubusson Brevats d'invention, Tome, 6, 151.
(Process for preparing malt sirup.)
- 1828. Otto. Allgemeine Handlungs Zeitung, Nuremberg, p. 239.
"Preparation of Malt sirup."
- 1833. Ludersdorff. J. pr. Ch. XVII, 401
"Sirup by action of malt or sulphuric acid on starch."
- 1834. Dumas, J. pr. Ch. I, 78.
"A sample of starch sirup laid before French Academy."
- 1834. Fichtner, Jahrb. Kais, Koenig. Polyt. Inst. Vien.
Vol. 15, 245.
"Preparation of Potato Syrup."
- 1845. Balling. Encycl. Zeits. d. Gewerbwesens, 1145.
"On Potato Syrup."
- 1850. Soubeiran. J. Pharm. (3) XVIII, 328.
"Detection of Starch Sirup."
- 1851. Knapp, Ronalds, Richardson. Chemical Technology.
Chemistry applied to arts and manufactures.
London, Vol. 3.
"Sirup of gum" made by action of acids or diastase (malt) on starch," p. 241.
Solutions of starch sugar spoken of as sirup, pp. 251, 253.
- 1854. "The Mechanic" (American) p. 288.
"Sirup from Potatoes."
- 1855. Payen. Precia de Chimie Industrielle, Paris.
Constantly speaks of glucose in solution or—

753

EXHIBIT 169.

C. F. Chandler's Report.

Liquid form as "sirup" gives names:

"Sirop de focule (starch)."

"Sirop de ble (grain)."

"Sirop imponderable".

1855. Chevalier. Dictionnaire des Alterations et Falsifications des Substances Alimentaires, Paris.
 "Sirop de glucose, sirop glucoses".
 "Sirop de fécule, sirop de ble".
 "Sirop de froment (wheat)."
1865. Dullo. Centrbl. 1024.
 "Preparation of starch syrup".
1870. Bruno Kerl. Repertorium der technische. Literatur, 1860-1873, p. 1214.
 Mentions "4th General Meeting of the Association of Starch, Starch syrup, and Starch Sugar manufacturers of Germany at Berlin, February 11, 1870".
1871. C. Kroethe, Dingl. Pol. J. 200, p. 139.
 "Manufacture of starch syrup and starch sugar".
1872. Rudolf Weber, Wagner's Jahrs. 18,532.
 "Lecture on Starch Sugar and Starch Syrup".
1876. Anthon. Scientific American, 34, 342.
 "Dextrin in different kinds of commercial starch sirups".
1878. Anthon. Wagner's Jahrs.
 "Experiments on improving poorer kinds of Starch Syrup".
1881. Cassamajor. J. Am. Chem. Soc. Vol. II, page 429.
 "Detection of starch syrup in sugar house molasses".
1881. L. von Wagner's "Starch, Glucose, Starch Sugar and Dextrin", Philadelphia.
 "Starch Syrup".
 "Syrup of Glucose".

754

EXHIBIT 170.

C. F. Chandler's Report.

- "Glucose Syrup".
 "Dextrin Syrup".
 "Capillar Syrup".
 "Syrup Imponderable".
1885. Sieben. J. Soc. Chem. Industry. London 1885, Vol. V. page 411.
 Composition of starch sugar, syrup, etc.
1888. Newland. Handbook for Planters & Refiners, London.
 "Starch Syrup".
 "Imponderable Syrup".
1889. Emile Bonant. Nouveau Dictionnaire der Chimie, Paris. pages 471-472.
 "Glucose".
 "Sirop".
 "Sirop Imponderable".
 "Sirop de ble".
 "Sirop de fécule".
1890. E. O. Von Lippmann. Geschichte des Zuckers.
 "Capillar Syrup".
 "Syrup Imponderable".

1891. Samuel B. Sadtler. Handbook of Industrial Organic Chemistry. Philadelphia pp. 167-169.
Speaks of maltose as syrup or crystalline. Mentions syrup made from corn starch by Brussels Maltose Company. Says liquid glucose is known in France as "Sirop Cristal".
1892. Damer & Rung. Chemisches Handwörterbuch. 2nd edition, Berlin.
Defines syrup as a "thick sugar solution."
Mentions several kinds of syrup, including starch syrup.
1893. J. Koenig. Die Menschlichen Nahrung, und Genussmittel, Berlin, Vol. II, page 717.
Analysis of "Starch sugar syrup"; uses the term "Krystall Syrupe".
1894. Stone & Dixon. J. Soc. Chem. Ind. p. 178.
"Characteristics of glucose syrups".

755

EXHIBIT 171.

C. F. Chandler's Report.

1896. Dr. O. Dammer. Handbuch der Chemischen technologie. Stuttgart, Vol. III "Preparation of starch syrup". Describes "Kapillar syrup" which is thin: "Syrup imponderable" which is thick. Speaks of pleasant, sweet tasting syrup" now made in America from corn.
Speaks of malt syrup.
1896. Dr. O. Saure. Report on the Starch Industry and Starch Manufacturers of the United States, Berlin, page 13.
Disbusses "starch sugar" and "syrup" and again on page 116 has a separate chapter on starch syrup and starch sugar. Throughout the work applies the word "syrup" to solutions of starch sugar.
1898. Alfred H. Allen. Commercial Organic Analysis, London & Philadelphia.
Speaking of glucose says the term is restricted to syrup preparations. States that the following grades are recognized:
"Glucose".
"Mixing Glucose".
"Mixing syrup".
"Corn syrup".
1899. U. S. Dispensatory, page 1175.
Speaks of solutions of glucose as syrup.
1900. J. Koenig. J. Soc. Chem. Ind. page 453.
"Starch Syrup in the manufacture of food stuffs".
1901. Dr. Wilhelm Barsch. Die Fabrikation von Stark-zucker, page 200.
Speaks of "potato syrup" and "starch syrup".
1904. Albert E. Lesch, Chemist of the State Board of Health of Massachusetts. "Food Inspection and Analysis" page 470.
"Commercial glucose, otherwise known as mixing syrup, crystal syrup, and starch or corn syrup".

1904. Prof. von Lippman. Die Chemie der Zucker-arten. Braunschweig.
Calls solutions of starch sugar "starch syrup".

756

EXHIBIT 172.

C. F. Chandler's Report.

1905. Prof. Henry Leffman. Select Methods in Food Analysis. page 125.
"Glucose is often termed corn syrup".
1905. Thorp's Dictionary of Applied Chemistry, Vol. I, page 653.
Speaking of starch sugar "In America green maize starch is the chief material" hence the name corn sugar.
1905. Von Raumer. Zeit. f. Angewandte Chemie, Berlin. page 1953.
Article on "Starch Syrup".
1906. H. Luerig. Zeit. f. Angewandte Chemie, Berlin. page 290.
Article on "Starch Syrup".
1906. Matthes & Mueller. Zeit. f. Angewandte Chemie, Berlin, page 1864.
Article on "Starch Syrup".
1906. Richard Meyer. Jahrbuch der Chemie, Braunschweig. page 375 and 376.
"Starch Syrup".
1907. J. Varges. Nahrungs Mittle Chemie, Leipzig, page 234.
States that grape or starch sugar is made from potatoes, rice, and corn, and that the liquid product is called starch syrup or kapillar syrup.
1907. Prof. Dr. H. Ost. Lehrbuch der Chemischen Technologie, Hanover, page 458.
States that Germany made annually from 1901 to 1904 five hundred and fifty-nine thousand hundred-weight of starch syrup.
Page 469—states that syrup is made in Germany exclusively from potatoes; in America from corn.

757

EXHIBIT 173.

NEW YORK, N. Y., Dec. 18, 1907.

It is my opinion that the word "syrup" is not a technical one, but of general significance. As such it is usually understood to mean a thick, sweet liquid. Frequently, it is applied to any liquid of Syrupy consistence, totally irrespective of whether the liquid is sweet or not. Laymen would distinguish between syrups mainly by outward physical appearance and by taste, and to them there probably would seem as great a difference between a heavy, dark-colored molasses and maple syrup as between the same molasses and starch syrup. The designation "Corn Syrup" therefore, for the thick, sweet liquid obtained by the action of acids upon corn starch is in no sense

a misnomer. It conveys a perfectly truthful meaning—that of a thick, sweet liquid, produced in some way from corn, and it would be so understood by the general public. The word “syrup” is a general term used to indicate certain prominent physical properties, and to attempt to define it on a basis of chemical composition appears to me as inadvisable as it is likely to prove difficult.

(Signed)

MARSTON T. BOGERT.

758

EXHIBIT 174.

CHICAGO, *December 21, 1907.*

Endorsement of Dr. Walter S. Haines, Professor of Chemistry, Materia Medica and Toxicology, Rush Medical College and University of Chicago.

“Both by common usage and by dictionary authority the word “syrup” is properly applicable to a thick solution of glucose, and since the latter is invariably made from corn in this country, the term “corn syrup” with us is literally descriptive and entirely appropriate”.

759

EXHIBIT 175.

In my opinion the word syrup means a thick, sweet solution of sugar or sugars, and properly can not be confined to solutions of cane sugar.

The name corn syrup seems to me an appropriate one for the syrup made from corn-starch, and in no way misleading.

I give these opinions with some hesitation, as I am in no way an expert on the subject of sugars.

(Signed)

CHARLES LORING JACKSON.

Harvard University, December 23rd, 1907.

760

EXHIBIT 176.

UNIVERSITY OF VIRGINIA,
CHARLOTTESVILLE, VA., *Dec. 23, 1907.*

The word Syrup is generally applied to any watery solution of viscid consistence and sweet taste, whatever may be the particular saccharine substance or substances to which this taste is due. This meaning of the term is sanctioned by Scientific, commercial and popular usage at present and for at least a century past. The word corn is in the United States generally understood to mean the grains of “Indian corn” or “Maize”. To designate as “Corn Syrup” the thick, sweet liquid sold under that name for domestic use as food, and made from the starch of maize, appears to be quite legitimate and correct, and entirely free from any tendency to mislead. To refuse to sanction such use of the term would imply a claim to arbitrarily

make a change in the English language as currently spoken and written in this country.

(Signed)

J. W. MALLET,
Professor of Chemistry.

761

EXHIBIT 177.

GEORGE WASHINGTON UNIVERSITY,
WASHINGTON, Dec. 21, 1907.

The word "syrup" is a generic term which has long been generally applied to a variety of thick liquids possessing a sweet taste and it would be improper and misleading to restrict its use to a single composition of matter.

Corn syrup is one among several syrups which have long been well known and used, and the name "Corn Syrup" as applied to the thick sweet liquid product obtained by the action of acids on corn starch, is readily understood and conveys a definite and familiar idea to the general public.

(Signed)

CHARLES E. MUNROE,
Professor of Chemistry.

762 & 763

EXHIBIT 178.

Copy of Letter Issued by Prof. Samuel P. Sadtler, Ph D., LL. D.

PHILADELPHIA, Dec. 19, 1907.

The Corn Products Refining Co., 26 Broadway, New York.

GENTLEMEN: It seems to me that the term "corn syrup" as applied to the liquid product of the hydrolysis of corn starch is not only a proper term, but the best and most exact term from a chemical point of view.

It is undoubtedly a syrup from the point of view of its consistency as a liquid, and it contains in solution at least two varieties of sugars, viz: maltose and dextrose, so that as an aqueous solution of these sugars it is properly a syrup.

By analogy with the use of the term "Kartoffeln Sirup" or potato syrup, used almost exclusively in Germany to designate the corresponding product made from potato starch, it should be called "Corn Syrup." No other term could be applied with the same chemical accuracy or appropriateness. While "Glucose Syrup" has been used as a chemical designation it is not accurate as the analysis of the product will show it to be a mixture of a sugar of the $C_6H_{12}O_6$ class, one of the $C_{12}H_{22}O_{11}$ class and dextrine, a related body.

I therefore believe that the term "Corn Syrup" is the best descriptive term, and at the same time the one least subject to misconception from the chemical point of view.

I remain, yours very truly,

(Signed)

SAM. P. SADTLER.

Dic. S. P. S.

I hereby certify that this is a correct and true copy of the original.
W. M. BURKHARTH.

764

EXHIBIT 179.

In my opinion the word "syrup" conveys to the general public the familiar idea of a thick, sweet liquid containing a considerable *idea of a thick, sweet liquid containing a considerable* proportion of a sugar or mixture of sugars. I therefore believe that the term "Corn Syrup" is properly applied to strong solutions of the sugar or sugars obtained by the action of acids upon corn or corn starch.

(Signed)

HENRY C. SHERMAN.

I hereby certify that the above is a true and correct copy of the original.

Sworn to before me this 21st day of December, 1907.

[SEAL.]

FRANKLYN DOE,
Notary Public, Kings County.

Certificate filed in New York County.

765

EXHIBIT 180.

Copy of Letter Issued by Prof. Edgar F. Smith, of the University of Pennsylvania.

I feel very sure that a water solution of sugar made from starch may be called a syrup, and that "Corn Syrup" is an appropriate name for such a solution of the sugar made from corn starch.

(Signed)

EDGAR F. SMITH.

12-19-'07.

I hereby certify that this is a correct and true copy of the original.

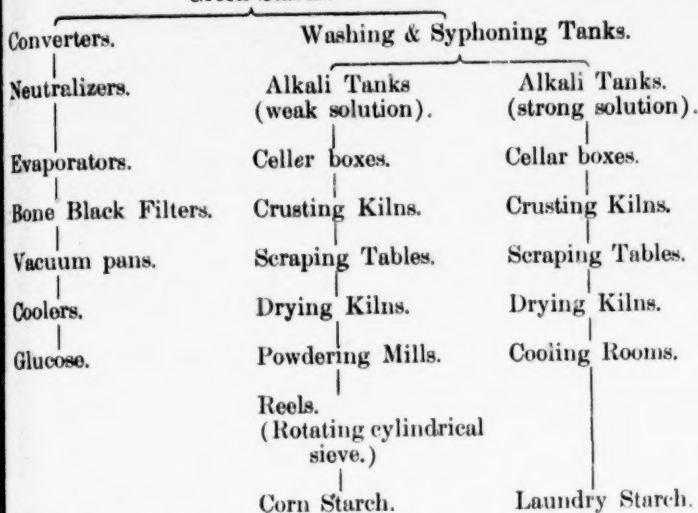
WALTER M. BURKHARTH,
Stenographer.

766

EXHIBIT 214.

Corn.

Green Starch.



Circuit Court, Dane County. Filed Jan. 5, 1909. Lawrence O. Larson, Clerk.

767

EXHIBIT No. 215.

Pamphlet containing Pure Food Law of the state of Iowa with rulings of Food & Dairy Commissioner.

(This exhibit will be found in bill of exceptions in State vs. McDermott, with which this case was tried.)

768

STATE OF WISCONSIN,

Dane County, ss:

I, Lawrence O. Larson, clerk of the circuit court within and for said county of Dane, in obedience to the mandate of the within and foregoing writ of error and of the foregoing order of said circuit court requiring the return of the original papers of record in the action in which said writ of error is issued instead of certified copies thereof, and the stipulation of the parties relative to a supplemental return herein, herewith transmit and return to the honorable supreme court of the state of Wisconsin the original bill of exceptions prepared, made, signed and certified by the Hon. E. Ray Stevens, judge of said court, and filed in my office in said action on the 27th day of September, 1909, in accordance with the stipula-

tion of the parties to said action, which said stipulation was heretofore returned to the supreme court as a part of the record in the action of State vs. George McDermott, which was tried with this action in said court and the record wherein was concurrently with the record in this action certified and returned to the supreme court.

In testimony whereof I hereunto set my hand and affix the seal of the said circuit court this 27th day of September, 1909.

[SEAL.]

LAWRENCE O. LARSON,
*Clerk Circuit Court for the County of
Dane, State of Wisconsin.*

769 And afterwards on the 19th day of March, A. D. 1910, the same being the 18th day of said term, the following proceedings were had in said cause in this court.

Dane Circuit Court.

T. H. GRADY, Plaintiff in Error,
vs.

STATE OF WISCONSIN, Defendant in Error.

And now at this day came the parties herein by their attorneys, and the argument of this cause having been commenced by H. O. Fairchild, Esq., for the said Plaintiff in Error, and by J. M. Olin, Esq., for the said defendant in Error, and there not being now sufficient time to complete the same, it is continued for further argument.

770 And afterwards on the 21st day of March, A. D. 1910, the same being the 20th day of said term, the following proceedings were had in said cause in this Court:

Dane Circuit Court.

T. H. GRADY, Plaintiff in Error,
vs.

STATE OF WISCONSIN, Defendant in Error.

And now at this day came the parties herein by their attorneys and the argument of this cause having been resumed and completed, and the Court not being now sufficiently advised of and concerning its decision herein, took time to consider of its opinion.

771 And afterwards, to-wit: on the 24th day of May, A. D. 1910, the same being the thirty-first day of said term, the judgment of this court was rendered in words and figures following, that is to say:

Dane Circuit Court.

T. H. GRADY, Plaintiff in Error,
vs.

STATE OF WISCONSIN, Defendant in Error.

Opinion by Justice Siebecker.

This cause came on to be heard on the return to the writ of error issued herein and was argued by counsel. On consideration whereof, it is now here ordered and adjudged by this Court, that the judgment of the circuit court of Dane County, in this cause, be and the same is hereby affirmed.

Justices Marshall and Timlin dissent.

772 Thereupon the opinion of the Court by Justice Siebecker and the dissenting opinion of Justice Timlin were filed in words and figures following, that is to say:

773 STATE OF WISCONSIN,
In Supreme Court:

Nos. 2 & 2, State.

GEORGE McDERMOTT, Plaintiff in Error,
vs.

THE STATE OF WISCONSIN, Defendant in Error.

T. H. GRADY, Plaintiff in Error,
vs.

THE STATE OF WISCONSIN, Defendant in Error.

The defendants were, in separate actions, convicted in the municipal court of Dane county of violating chapter 557, Laws 1907. Upon appeal to the circuit court for Dane county, each of the defendants waived a jury, and entered into a stipulation with the state, whereby the two actions were to be tried together, and the testimony taken was to be regarded as the testimony in each case. The actions are before this court on writs of error to the circuit court for a review of the proceedings wherein they were convicted and sentenced. Chapter 557, Laws 1907, so far as essential to the consideration of these actions, provides as follows: "No person * * * shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, * * * unless the same be true to the name under which it is sold and as defined in the standards for purity for food products as latest promulgated by the United States Secretary of Agriculture; * * * and no person * * * shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, * * * or molasses, mixed with glucose, unless the barrel, cask, keg, can, pail or other

original container, containing the same be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture, as follows: First: In case said mixture shall contain glucose in a proportion not to exceed 50 per cent. by weight, it shall be labeled and sold as 'Maple Syrup and Glucose.' * * * Second: In case said mixture shall contain glucose in proportion exceeding 50 per cent. and not more than 75 per cent. by weight, it shall be labeled and sold as 'Glucose and Maple Syrup.' * * * Third: In case said mixture shall contain glucose in a proportion exceeding 75 per cent. by weight, it shall be labeled and sold as 'Glucose Flavored with Maple Syrup.' * * *

The complaint in one case charges the defendant with having had for sale and selling a certain mixture composed of more than 75 per cent. glucose and less than 25 per cent. cane syrup, and that the can containing the mixture was labeled "Karo Corn Syrup"; "10 per cent. Cane Syrup, 90 per cent. Corn Syrup." In the case of the other defendant it is charged that the can was labeled "Karo Corn Syrup with Corn Flavor"; "Corn Syrup 85 per cent." The defendants are retail merchants at Oregon, Dane county. The goods were bought by each of them from wholesalers in Chicago, a number of cans being packed together in a box. When received by the defendants, the goods were removed from the boxes and placed upon the shelves in the stores for sale in their retail trade. The wooden boxes in which the goods were received have been destroyed. The sale of the articles is admitted. Glucose is a viscid product made by treating starch with mineral acids. The acid is then neutralized, the product made colorless, and the water in it largely evaporated. Glucose is of a slightly sweet, insipid taste, and, in order to make it a palatable and saleable article of food, it is mixed with and flavored by cane, maple, refiners', or sorghum syrup. In Europe the starch used for producing glucose is almost exclusively obtained from potatoes; in the United States from corn. There was evidence that in the United States there exists a prejudice against glucose as an article of food, and that dealers and manufacturers label and sell it as "Corn Syrup."

SIEBECKER, J.:

775 The defendants in these two actions admit that in the conduct of their retail trade at their respective places of business they sold the article as a table syrup, as charged in the complaint. It is also admitted that the purchaser received from each defendant a can of goods of what is called "Karo," "Corn Syrup with (Cane) Flavor," which is a mixture of glucose and refiners' syrup.

Chapter 557, Laws 1907, provides that no person shall sell, offer or expose for sale, or have in his possession with intent to sell, any of the syrups specified in the act or any molasses or glucose, unless the same be true to the name under which it is sold and as defined in the standards of purity for food products as latest promulgated by the United States Secretary of Agriculture, and unless the barrel, cask, keg, can, pail, or other original container containing the same

be distinctly branded or labeled with the true name of its contents, as defined in the above-named standards; and no person shall sell, offer or expose for sale or have in his possession with intent to sell, any syrup or molasses mixed with glucose, unless the barrel, cask, keg, can, pail, or other original container containing the same be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture. The law then prescribes how syrup and glucose mixtures shall be labeled and branded, and separates the same into three classes: First. If the proportion of glucose does not exceed 50 per cent. by weight, it shall be labeled and sold by prefixing the name of syrup used as "Maple Syrup and Glucose." Second. If such proportion of glucose exceeds 50 per cent. and not more than 75 per cent., it shall be labeled and sold by adding the name of syrup as "Glucose and Maple Syrup." Third. If the proportion of glucose exceeds 75 per cent., it shall be labeled and sold by adding the name of syrup used for flavoring as "Glucose Flavored with Maple Syrup." It also prescribes the type and color of the label and that the ingredients used must be free from substances injurious to health or prohibited for use as articles of food. Any person violating the provisions of the act is deemed guilty of a misdemeanor and subject to fine and imprisonment.

The defendants assail the validity of this legislation upon several grounds. It is asserted that the act is invalid because the provisions are violative of the commerce clause of the federal Constitution, in that it attempts to regulate interstate commerce in an article of food, and that Congress has heretofore exercised its power by enacting specific regulations on the subject. The legislation, so far as it may be said to affect interstate commerce, falls within what has been termed the field of "concurrent jurisdiction" of the state and federal governments, and wherein the state may enact appropriate regulations provided they do not conflict with congressional legislation on the subject. *Brown v. Houston*, 114 U. S. 622, 5 Sup. Ct. 776; 1091, 29 L. Ed. 257; *State v. Railway Co.*, 136 Wis. 407, 117 N. W. 686, 19 L. R. A. (N. S.) 326.

The contention, however, is earnestly pressed upon us that the provisions of this state statute which have been applied to these defendants are in conflict with the rights secured under the federal Constitution granting the federal government authority to regulate interstate commerce. To support this claim, it is asserted that defendants' sales of the article in the cans as imported by them were sales in unbroken original packages; that to make such sales is a right secured to them as importers; and that the state regulations impose restrictions on them as importers, and thus violate their rights secured to them by the federal Constitution. In *Greek-American Sponge Company v. Richardson Drug Co.*, 124 Wis. 469, 102 N. W. 888, 109 Am. St. Rep. 961, the right of an importer to sell the articles imported into a state was considered and the original case of *Brown v. Maryland*, 12 Wheat. 419, 6 L. Ed. 678, was relied on to the proposition that "sale is the object of importation and is an essential ingredient of that intercourse of which importation constitutes a part." This right of sale is therefore under the federal au-

thority assured to the importer because it is an act which, if inhibited, would in effect be a prohibition of the importation. In *Schollenberger v. Pa.*, 171 U. S. 13, 18 Sup. Ct. 762, 43 L. Ed. 49, the court, speaking on this subject, says: "Reasonable and appropriate laws for the inspection of articles including food products were admitted to be valid, but absolute prohibition of an unadulterated, healthy, and pure article has never been permitted as a remedy against the importation of that which was adulterated and therefore unhealthy or impure." The provisions of this statute in no way prohibit the sale of the articles embraced within the regulation. Its object is to so regulate the traffic therein as to protect the people against imposition and false pretenses. The context of the law evinces the purpose that the regulations should apply to the traffic in the designated articles of food from the time they become at rest and mingled with the property of the state. That goods and merchandise transported from one state to another may thus become commingled with property of the state upon arrival at its destination by treating it as other property for sale to customers in a retail business was recognized in *Brown v. Houston*, 114 U. S. 622, 5 Sup. Ct. 1091, 29 L. Ed. 257. Under such circumstances, the fact that the articles are being sold in the original packages as transported cannot operate to prevent the state from subjecting them to proper police regulation for the protection of the people. Under such conditions, the articles are no longer in the channels of interstate commerce at the point of destination and before sale. Their status at

777 this point is like that of other property held by dealers for sale to consumers in the retail trade. As was stated by Chief Justice Marshall in *Brown v. Maryland*, 12 Wheat, 419, 6 L. Ed. 678, the original case concerning sales by importers: "It is sufficient for the present to say generally that when the importer has so acted upon the thing imported that it has become incorporated and mixed up with more of the property of the country, it has perhaps lost its distinctive character as an import. * * *" Applying this principle for distinguishing between articles that are within and without the channel of interstate commerce to the facts of the instant case, it seems clear that, when the defendants received the articles at their places of business, removed the cans from the container in which they were shipped, and put the goods up for sale in the cans as they received them, they had so dealt with the articles as to mingle them with the general property of the state before they were sold by them in their retail trade. *May v. New Orleans*, 178 U. S. 496, 20 Sup. Ct. 976, 44 L. Ed. 1165; *Plumley v. Mass.*, 155 U. S. 462, 15 Sup. Ct. 154, 39 L. Ed. 223; *Austin v. Tennessee*, 179 U. S. 343, 21 Sup. Ct. 132, 45 L. Ed. 224.

It is, however, argued that these articles were in the channels of interstate commerce at the time of the sale because Congress, under the food and drugs act (Act June 30, 1906, c. 3915, 34 Stat. 768 [U. S. Comp. St. Supp. 1909, p. 1187]), regulated the traffic therein, and that such regulation extends to and covers the regulation provided by the state law. The contention is that the federal act by specific regulation provides for the branding and labeling of articles

of food, and that this regulation covers and embraces the acts of sale for which the defendants are being prosecuted and punished under this state law. The title of this federal act declares its purpose is to prevent "the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods," and for regulating traffic therein. By section 1 of the act it is made unlawful for any person to manufacture food in any territory and the District of Columbia which is adulterated or misbranded. Section 2 provides: "That the introduction into any state or territory or the District of Columbia from any other state or territory or the District of Columbia, or from any foreign country, or shipment to any foreign country of any article of food or drugs which is adulterated or misbranded, within the meaning of this act, is hereby prohibited; and any person who shall ship or deliver for shipment from any state or territory or the District of Columbia to any other state or territory or the District of Columbia, or to a foreign country, or who shall receive in any state or territory or the District of Columbia from any other state or territory or the District of Columbia, or foreign country, and having so received, shall deliver, in original unbroken packages, for pay or otherwise, or offer to deliver to any other person, any such article so adulterated or misbranded

778 within the meaning of this act, or any person who shall sell or offer for sale in the District of Columbia or the territories of the United States any such adulterated or misbranded foods or drugs, or export or offer to export the same to any foreign country, shall be guilty of a misdemeanor," etc. In so far as this act regulates interstate commerce in articles of food, it is a prohibition of the introduction of adulterated and misbranded articles of food from one state into another, and provides a punishment if any person shall ship or deliver for shipment such an article from one state to another, or who shall deliver it in the original unbroken packages for pay or otherwise, or offer to deliver it to any person, or any person selling it or offering it for sale, in the District of Columbia or the territories of the United States. The first paragraph of this section forbids any person shipping and delivering for shipment the prohibited article from one state to another and receiving such an article into a state, and, after having so received it, delivering it in the original unbroken packages for pay or otherwise or offering to so deliver it. It will be observed that this part of the act does attempt to regulate the traffic in these articles in the course of their importation from one state into another without reference to a sale thereof after arrival at their destination. But in the next clause the sale thereof is also regulated in the District of Columbia and territories of the United States. The terms of the act plainly indicate that Congress extended its regulation expressly to the acts of sales in the District of Columbia and the territories and the provisions of that regulation did not extend to the act of sale of an importation from one state to another. It is evident from these provisions of the act that Congress intended to extend its regulation of this traffic in the District of Columbia and the territories beyond the traffic within the channels of interstate commerce, obviously for the reason that the

legislative function to prescribe all police regulations within these jurisdictions devolves on it, while in the several states of the Union this function devolves on the Legislatures. *Sherlock v. Alling*, 93 U. S. 99, 23 L. Ed. 819; *Smith v. Ala.*, 124 U. S. 465, 8 Sup. Ct. 564, 31 L. Ed. 508; *Dent v. W. Va.*, 129 U. S. 114, 9 Sup. Ct. 231, 32 L. Ed. 623; *In re Rahrer*, 140 U. S. 545, 11 Sup. Ct. 865, 35 L. Ed. 572. It will be observed that the statute of this state does not prohibit the sale or traffic in the article sold by the defendants, but seeks to regulate the traffic therein to the extent of prescribing how the packages shall be labeled and branded to afford persons information as to the kinds and proportions of the ingredients composing the mixture. Its evident purpose is to prevent deception and to promote fair dealing in the sale of an article of food. If the regulation provided by the state tends to correct an actual evil in the traffic by which purchasers of an article of food are being deceived into buying something which it in fact is not, then the state acted within its appropriate field under the police power, and the law cannot be said to be invalid for want of power in the state to deal with the subject. The right of the state to legislate on this subject under such circumstances is well recognized and established.

The law is also assailed on the ground of indefiniteness in its provisions, and that it attempts to delegate legislative power to the Secretary of Agriculture of the United States. These alleged objectionable features are embodied in the first clause of St. 1898, §4601-1a, which prohibits selling, offering, or exposing for sale, or having possession with intent of selling, any unmixed syrup, molasses, or glucose "unless the same be true to the name under which it is sold and as defined in the standards of purity for food products latest promulgated by the United States Secretary of Agriculture," and requires the packages or containers to be branded or labeled accordingly. The section in a separate and independent clause next provides that no person shall sell any such syrup or molasses mixed with glucose, unless the original containers be branded or labeled as therein provided. The lower court held that the first part of the act relating to the mixtures of syrups, molasses, and glucose is a separate and independent clause, and wholly distinct from the clause preceding it, which deals with articles in their unmixed state as defined in the prescribed standard of purity. We are of the opinion that this ruling is correct. The provision pertaining to the mixed articles is as distinct from those in the preceding clause as it is separated into independent sections; nor are the provisions of the former essential to give the latter meaning or completion. The two parts deal with distinct topics in an independent manner. Under these conditions, we think that these two parts of the act were so treated by the Legislature, and that the one may be made operative and enforced without the other. The Legislature might well have considered that the simple unmixed articles for which standards were prescribed were much less liable to have been made the subject of imposition on the public than the mixed articles involved in the second clause, and thereby were induced to legislate as to the latter

regardless of the considerations involved in prescribing regulations for the former. Under such conditions, there is no apparent ground for holding that the adoption of the one part of the act was conditioned upon the adoption of the other. This renders unnecessary consideration of the validity of the first part which is assailed by the defendants, and we do not pass on the question. *Loeb v. Columbia Township Trustees*, 179 U. S. 472, 21 Sup. Ct. 174, 45 L. Ed. 280; *Quiggle v. Herman*, 131 Wis. 379, 111 N. W. 479; *State v. Sawyer Co.*, 123 N. W. 248. The defendants assert that they are deprived of their liberty and property under the provisions of this state statute without due process of law, in that the act violates sections 1, 8, 9, and 13 of article 1 of the state Constitution and the fourteenth amendment of the Constitution of the United States. The propositions involved in this claim of the defendants, as we comprehend them, are that as a matter of fact the article sold is a wholesome article of food for table use; that it is in fact a syrup as this term is commonly used and understood; that the terms "glucose" and "corn syrup" are synonymous and are in commerce interchangeably applied to the product obtained from the starch containing part of corn; that the article sold is known to consumers as "Corn Syrup" and is by them understood to be a compound of the product obtained from the starch of corn, mixed and flavored with table syrup. The record sustains the contention that commercial glucose is extensively used as an ingredient in articles of food, and in its pure state is a nutritious and wholesome product. The claim that it is in fact a syrup, as this term is commonly used and understood, is not sustained. The term "syrup" has an accepted meaning as commonly and properly understood and applied to articles of food for table use. It is in this sense that the term must be applied in dealing with this subject, and in this sense the term "syrup" is employed in this and kindred legislation regulating traffic in foods. The term "syrup" thus employed designates articles of food which are in common use as table syrups such as maple, sugar cane, and refiners' syrup. These articles in their pure and unmixed state are known by their inherent and peculiar colors, flavors, and viscosity which make them acceptable as to quality and imparts to them an agreeable taste, and hence they are desirable as articles of table food. The evidence shows that such table syrups are the products of sugar producing plants and possess these natural characteristics of flavors, colors, and consistency, and that they are commonly distinguished and known in the trade as syrups. It is not disputed but that glucose, whether made from corn or other starch containing substance, is not such a syrup, and that it has none of the flavors or colors of these table syrups, though it has viscosity. The court was therefore fully justified in finding that glucose in the pure and unmixed state is not a syrup in the sense the term is commonly used and applied to these articles of table foods, and that the terms "glucose" and "corn syrup" are not synonymous in their trade meaning and use as applied to articles of table food. The fact that the term "corn syrup" may have been applied to glucose to some extent by manufacturers and dealers and was thus employed

in legislation in this state and in the decisions of courts does not show that glucose is commonly known by the designation of
 781 "corn syrup." The characteristics and qualities of glucose in its pure state are admittedly not those of the articles known in the trade as table syrups; nor is it used as a table syrup in its unmixed state. The term "corn syrup," as applied generally to an article for table use, conveys a meaning and designates an article wholly different in character and quality from that of glucose. It does not appear that "corn syrup" designates a mixture having a fixed proportion of glucose or syrup constituents. It seems that such constituents are of variant proportions in the article sold as "corn syrup." Nor can it be said that the great mass of persons understand that "corn syrup" is a mixture of glucose and syrup. The natural result of such use of the term "corn syrup" is to mislead the consumers into the belief that they are obtaining a table syrup of the variety and kind commonly known as syrup, the product of sugar producing plants, and the consequences of such practice are that the consumers are misled and deceived in the respects as to the actual nature, the constituents, and the value of the article as a food product. Such a state and condition of affairs respecting the traffic in an article of food, though the article and its constituents are wholesome, is a well-recognized ground for the exercise of legislative authority under the police power to prescribe regulations to protect the people from imposition and deception in trafficking therein. *Gibbons v. Ogden*, 9 Wheat. 1, 6 L. Ed. 23; *Barbier v. Connolly*, 113 U. S. 27, 5 Sup. Ct. 357, 28 L. Ed. 923; *Powell v. Pa.*, 127 U. S. 678, 8 Sup. Ct. 992, 1257, 32 L. Ed. 253; *Crossman v. Lurman*, 192 U. S. 189, 24 Sup. Ct. 234, 48 L. Ed. 401.

In reviewing the cases on this subject, the court in *Plumley v. Mass.*, 155 U. S. 472, 15 Sup. Ct. 158, 39 L. Ed. 223, said: "If there be any subject over which it would seem the state ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may indeed indirectly or incidentally affect trade in such products transported from one state to another state, but the circumstance does not show that laws of the character alluded to are inconsistent with the power of Congress to regulate commerce among the states." *Sherlock v. Alling*, 93 U. S. 99, 23 L. Ed. 819; *Austin v. Tenn.*, 179 U. S. 343, 21 Sup. Ct. 132, 45 L. Ed. 224; *Powell v. Pa.*, 127 U. S. 678, 8 Sup. Ct. 992, 1257, 32 L. Ed. 253; *Meyer v. State*, 134 Wis. 156, 114 N. W. 501, 14 L. R. A. (N. S.) 1061.

The provisions of chapter 557, Laws 1907, under which these defendants were prosecuted and fined, clearly forbid sales without labeling or branding the articles as prescribed. That this legislation was a proper exercise of the legislative authority within the police power of the state we think is established by the authorities heretofore cited. Under these circumstances, the defendants' liberty and property rights secured to them by the state and federal Con-

stitutions have not been invaded, and their conviction of the charges preferred against them must be approved.

The judgment in each of the cases separately appealed from is affirmed.

Marshall and Timlin, JJ., dissenting.

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State, Nos. 2 & 3.

TIMLIN, J. (dissenting): I cannot bring myself into agreement with the majority opinion. I suppose it is unquestioned law and will be generally conceded that where a regulatory statute restrains, diminishes, or denies a constitutional right, such as liberty or the use and enjoyment of property, it is the duty of and within the power of the court to inquire whether such statute really subserves any public purpose giving the legislative predicate that it does so the utmost deference. *Mugler v. Kansas*, 123 U. S. 623, 8 Sup. Ct. 273, 31 L. Ed. 205; *State v. Redmon*, 134 Wis. 89, 114 N. W. 137, 14 L. R. A. (N. S.) 229, 126 Am. St. Rep. 1003; *Schollenberger v. Pennsylvania*, 171 U. S. 1, 18 Sup. Ct. 757, 43 L. Ed. 49; *Dobbins v. Los Angeles*, 195 U. S. 236, 25 Sup. Ct. 18, 49 L. Ed. 169; *Alleyer v. Louisiana*, 165 U. S. 578, 17 Sup. Ct. 427, 41 L. Ed. 832. Hence, if a statute based solely upon the preservation of the public health purported to restrain the sale or use of an article of food known by all possessing ordinary intelligence to be wholesome and nutritious although the article might be caviare to the "unlearned in-cerement," the statute would be declared void because it would in that case be apparent to the court that the law was based upon a clearly apparent error of fact on the part of the Legislature as regards the relation of the law to the general public, and such law assuming to restrain liberty or interfere with the use and enjoyment of property must fall because it lacked the support which the statute must have before it can invade in any material degree these constitutional rights. It is conceded by the circuit court and by the majority opinion, I think, that the substance here in question is wholesome, and in no wise injurious to health. In any view this is established. When we come to consider such a statute which has no support as preserving the public health or the public peace, but must be upheld if at all on the ground that it is intended to protect the public against deception and fraud, many new considerations arise. First, what deceit or fraud will suffice to uphold such a statute? Will anything in conflict with the most refined ethics suffice? Will fraud upon the public be in such case defined from the view-point of caveat emptor or caveat venditor, etc.? If anything inethical will support such a statute, and we defer in proper degree to the Legis-lature and make the allowance for difference of opinion which we accord to that branch of the government, then there has been discovered a field in which constitutional guarantees are vain and worthless, and in which legislative activity may expend itself in fostering one commercial interest or industry at the expense of another; for trade is practically always inethical. We would by

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sustaining such laws also invite into the legislative halls the struggle for industrial and commercial gain or supremacy, and in such case, if experience counts for anything, there is no doubt that the invitation would be eagerly accepted.

Without pursuing these reflections further, my opinion is that the fraud or deceit upon the public which will uphold such a statute and justify reasonable restriction of constitutional rights must be something which is recognized by law as actionable fraud. In other words, there must be damage as well as deception. To use a simple illustration: I do not think a statute imposing a penalty upon any one who sold salt not branded or designated as "chloride of sodium" or "sodium chloride" would be valid no matter what number of persons would refuse to use it under the latter name because they relished it as salt and despised it as sodium chloride. In such case, in most cases which arise, and in the instant case (unless this ground of invalidity appears on the face of the statute), the court, because of the paramount rule of constitutional law involved, must hold the regulatory statute invalid when from judicial knowledge or notice the court can see that the statute can have no such relation to the public peace, health, morals, or welfare as is requisite to uphold the encroachment upon constitutional rights. Great weight will, of course, be given to the assumed determination of this question by the Legislature. All this is now elementary law, but there remains its application. Chapter 152, Laws Wis. 1905, an act entitled as "relating to the sale of syrups, molasses and glucose mixtures," provided that no person should "sell or expose or offer for sale or have in his possession with intent to sell any syrup, sugar cane syrup, sorghum syrup, molasses or glucose, unless the same be true to the name under which it is sold, and as defined in the standards of purity for food products as adopted by the United States Department of Agriculture and unless the barrel, cask, keg, can, pail, or package containing the same be distinctly branded or labeled with the true name of its contents as defined in the above-named standards; and no person shall sell, offer, expose for sale or have in his possession with intent to sell any syrup, sugar cane syrup, sorghum syrup or molasses mixed with glucose unless the mixture be sold as and for compound glucose mixture or corn syrup, and unless the barrel,

784 cask, keg, can, pail or package containing the same be distinctly branded or labeled '*Glucose Mixture*' or '*Corn Syrup*' in plain Gothic type," etc. Chapter 557, Laws Wis. 1907, under which the plaintiffs in error were convicted, is entitled, "An Act to amend sections 1 and 2 of chapter 152, Laws of 1905. * * * relating to the sale of syrups, molasses, glucose mixtures and maple syrup mixture and to protect the public health." It amended the first-mentioned act to read: "No person, firm or corporation by himself, officer, servant, or agent or as the officer, servant or agent of any other person, firm or corporation, shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup, molasses or glucose unless the same be true to the name under which it is sold as defined in the standards of purity for food pro-

ducts as * * * latest promulgated by the United States Secretary of Agriculture and unless the barrel, cask, keg, can, pail or * * * other original container containing the same be distinctly branded or labeled with the true name of its contents as defined in the above-named standards; and no person, firm or corporation by himself, officer, servant or agent, or as the officer, servant or agent of any other person, firm or corporation, shall sell, offer or expose for sale, or have in his possession with intent to sell any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup or molasses mixed with glucose unless the * * * barrel, cask, keg, can, pail or * * * other original container containing the same be distinctly branded or labeled * * * so as to plainly show the true name of each and all of the ingredients composing such mixture as follows: * * * Third. In case said mixture shall contain glucose in a proportion exceeding seventy-five per cent. by weight it shall be labeled and sold as * * * 'Glucose Flavored with Refiners' Syrup,' etc. The words italicised by me in the act of 1905 are omitted from the act of 1907, the italicised words in the act of 1907 are new in that act, and the asterisks in the latter act denote the places where the words omitted from the act of 1905 formerly appeared.

Prior to the commission of the acts for which plaintiffs in error are prosecuted, the United States Secretary of Agriculture, proceeding under the act of Congress of June 30, 1906, and acting with the Secretary of the Treasury and the Secretary of Commerce and Labor, made a decision or regulation as follows: "Washington, D. C., February 13, 1908.—We have each given careful consideration to the labelling under the Pure Food Law of the thick viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose maltose and dextrin. In our opinion it is lawful to label this syrup as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if 785 labeled 'Corn Syrup with Cane Flavor' [Signed]." The accused at the time they acted were then confronted with a

Wisconsin statute which on its face authorized them to describe, brand or label this substance by the same name by which it was lawfully known in interstate commerce and to sell and deal in it within the state under that name, viz., "Corn Syrup." Indeed, the statute went further, and required them to designate this substance as corn syrup, at least after the latest promulgation of the Secretary of Agriculture on February 13, 1908. But by that part of the statute of 1907 following the first semicolon that substance which in its unmixed condition may or must be called "Corn Syrup" under the precedent portion of the same act must when mixed with other designated substances be called "Glucose." Would not such a statute rather authorize deception than prevent it? Does the statute not carry with it the inference that the legislative object is to prevent or make difficult sales of the mixture by giving this substance in the mixture a different name from that given by the statute to it while it is in an unmixed condition? In the simple, says the statute, it

shall be called and known as "Corn Syrup"; in the compound, the same substance shall be labeled "Glucose." The law either authorizes a false and misleading designation of the substance in the first place or it prohibits the use of a proper and lawfully authorized designation in the second place. It must be the latter because the term "Corn Syrup" is truly descriptive of the substance in question by reference to its origin and its appearance to the eye, and because by that portion of the statute in question preceding the first semicolon this substance may and perhaps must be so designated in interstate commerce as well as in intrastate commerce. The one name is composed of German and Latin derivatives and identifies the substance by two of its qualities, origin and appearance. The other name is Greek and identifies the substance by one of its qualities, sweetness. But the former term has been legalized as a name for the unmixed substance and remains so legalized. When the statute in question was enacted, the Legislature so framed the first part of the statute that the name by which this substance was known ~~re~~ should become known in interstate commerce under the rulings of the Secretary of Agriculture should also be the lawful name by which the substance should be known in the internal commerce of the state. This part of the statute considered with the order of the United States Secretary of Agriculture of 1908 establishes, therefore, that designating the substance in question by the words "Corn Syrup" does not deceive. In the nature of things it could not deceive or defraud to describe one ingredient of a mixture by its proper, legal, and authorized name which it bore before being

786 put into the mixture. The Legislature did not determine that this was a false description because it had before the amendatory act of 1907, and in and by the latter act authorized the use of these words to designate the substance in question. That the Legislature did not by this act of 1907 intend protection against fraud or deception is also apparent from the title thereof wherein it is stated that the object of the act is "to protect the public health." The title of an act is not potent to limit or enlarge the words of the act, but for ascertaining the mischiefs which in the legislative mind the statute was aimed to prevent it has great force. Particularly is this true in a state like Wisconsin, where before being put on their passage acts are read merely by reading the title. *Eby's Appeal*, 76 Pa. 311, 314; *Conn. M. L. I. Co. v. Albert*, 39 Mo. 181; *United States v. Fisher*, 2 Cranch, 358, 383, 2 L. Ed. 304, and cases in *Rose's Notes*; *United States v. Palmer*, 3 Wheat. 610, 631, 4 L. Ed. 471; *Price v. Forrest*, 173 U. S. 427, op., 19 Sup. Ct. 434, 43 L. Ed. 749; *Nazro v. Merchants' I. Co.*, 14 Wis. 295. The Legislature of Wisconsin enacted this law to preserve the public health just as it declared in the title it did, but under the impression, now shown to be erroneous, that the prepared and partially hydrolized starch of corn was an unwholesome food, and the statute cannot and should not now be attempted to be upheld upon the different ground of prevention of fraud. It also appears, I think, as matter of fact, that there could be no deception of the public by the label in question. The article was sold as "Karo Corn Syrup with Cane Flavor."

The word "Karo" I take to be a mere trade-name or trade-mark. The words "Corn Syrup" are not only a lawful but also a popular designation of the substance otherwise called "glucose," and there is no controversy but what the article sold was corn syrup or glucose flavored with refiners' syrup. Returning again to the order of the Secretary of Agriculture of date February 13, 1908, made pursuant to the act of Congress of June 30, 1906, we find this: "In our opinion it is lawful to label this syrup as corn syrup. And if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'Corn Syrup with Cane Flavor.'" This is quoted again because it bears on the question of fact as well as on the question of law appearing on the face of the statute. It shows that the defendants were dealing in or selling the article under a name authorized and lawful in interstate commerce, and also under a name with which the public must have been familiar because of its extensive use in commerce. Add to this that the statute of Wisconsin for 1905 first quoted authorized this name, that books, newspapers, market reports, dictionaries, and encyclopedias speak of it as cereal syrup or as corn syrup, and that these

787 words are in no respect false or misleading aside from the statute, but truly represent the origin and appearance of the substance, and it appears to me that there could have been no deception or fraud unless upon a class of people who by reason of ignorance have little or no knowledge of current speech, writings, statutes, trade, or commerce, and possess an unreasoning prejudice against anything named glucose, but find the substance if labeled "Corn Syrup" palatable and cheap, and would purchase and use it if labeled "Corn Syrup," but would not if labeled "Glucose." I do not think that, even conceding the existence of such a class, a police regulation based upon protecting the prejudice of the ignorant would be at all valid, but rather that this would be an additional ground of invalidity because of there being two permissible names each of which truly described the substance and the Legislature compelled the selection of one which would limit the owner's sales and damage his trade. The oleomargarine cases are irrelevant. These are cases of deceit by disguise and damage by sale of the cheap and inferior as and for the costly and superior article. This is a case of two names for the same substance. One describes it at least as well as the other. The defendants are compelled to use the first to identify the pure substance. Without prolonging this dissent further, I think such legislation is unconstitutional both under the Constitution of this state and under the fourteenth amendment to the Constitution of the United States. It tends to deprive the citizen of liberty and property contrary to law by requiring him to change the name and designation under which he purchased this property, and give it some name or designation instead offensive to some part of the trade without any legal foundation or reason for so doing. I make no question but that if it had been shown that the article was injurious to health, or the sale of it constituted a legal fraud, the state in the exercise of its police power

might restrict its sale by requiring it to be branded with some unpopular name, if that name alone truly designated the substance. That would be a reasonable police regulation interfering with interstate commerce to some extent, but not to an unlawful extent. It would restrict and impede that commerce by forbidding the persons engaged therein from selling or further dealing in the articles of commerce after such articles had reached this state, but it would be justified by the necessities of the case. I also think there the power of the state Legislature ends, and, when the state regulation is shown to have no foundation in the police power of the state, such regulation becomes ineffective to restrain or interfere with the further traffic by the person engaged in interstate commerce in such article. So that both on the ground that the statute restricts without warrant the constitutional rights of the accused and that it restricts interstate commerce by restraining the sale of such articles of commerce after they have reached this state without any valid reason for such restriction, I am convinced that the judgment of the court below should be reversed. *Jewett v. Smail*, 20 S. D. 232, 105 N. W. 738; *Brown v. Maryland*, 12 Wheat. 419, 6 L. Ed. 678; *Schollenberger v. Penn.*, 171 U. S. 1, 18 Sup. Ct. 757, 43 L. Ed. 49; *Cooke on the Commerce Clause*, § 91, and cases; also section 99, and cases.

MARSHALL, J.:

I concur in the dissenting opinion by Mr. Justice Timlin.

788 And afterwards, towit; on the 22nd day of June, A. D. 1910, the following order was made in said cause by this Court:

Dane Circuit Court.

T. H. GRADY, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

Ordered, that the record be retained in this court until July 10th, 1910.

789 STATE OF WISCONSIN:

In Supreme Court.

T. H. GRADY, Plaintiff in Error,

vs.

STATE OF WISCONSIN, Defendant in Error.

I, Clarence Kellogg, Clerk of the Supreme Court of the State of Wisconsin, do hereby certify that the above and foregoing is a true and correct transcript of all the record and proceedings now on file and of record in my office with all things concerning the same in the above entitled cause.

That the original writ of error, the petition therefor and order allowing the same, the citation with its service endorsed thereon, the assignment of errors, certificate of lodgment, order as to original exhibits and a copy of the bond are appended to the return herein, and that they are all returned to the Supreme Court of the United States in obedience to the command of the writ of error hereto annexed.

In witness whereof, I have hereunto set my hand and affixed the seal of said court at Madison, this 28th day of July, A. D. 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
Clerk of Supreme Court, Wisconsin.

790 STATE OF WISCONSIN,
In Supreme Court:

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

Assignment of Errors Made and Filed in the Supreme Court of the State of Wisconsin by the Above-named Plaintiff in Error, the Same Being Contained in the Brief of the Plaintiff in Error, as Provided by the Rules of said Supreme Court.

First. The trial court erred in convicting the defendant of any offense under the complaint and warrant herein, and in adjudging, that he pay a fine and costs thereunder.

Second. The trial court erred in not finding Chap. 557 Laws 1907, under which the defendant was tried, convicted and fined, void and of no effect, because in violation of Secs. 1, 8, 9 and 13, respectively, of Art. I of the Constitution of Wisconsin.

Third. The trial court erred in not finding Chap. 557 Laws 1907 void and of no effect because in violation of Sec. 1 of Art. IV of the Constitution of Wisconsin.

Fourth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect, because in violation of that part of Sec. 8, Art. I of the Constitution of the United States, known as the "commerce clause" of that constitution.

Fifth. The trial court erred in not finding Chap. 557 Laws 1907, void and of no effect because in violation of Sec. 1 of the
791 Fourteenth Amendment of the Constitution of the United States, in that it deprives the defendant of his liberty and of his property without due process of law, and also denies to him the equal protection of the laws.

Sixth. The trial court erred in finding that the can or pail of "Karo Corn Syrup with Cane Flavor" sold by the defendant was not, at the time of such sale, an original unbroken package within the meaning of the Act of Congress known as the Food and Drugs Act of June 30, 1906, or Chap. 3915; 34 Stats. L. 768.

Seventh. The trial court erred in finding that there is any fraud or deception upon the public or individual purchasers or consumers in selling the article in question herein as "Karo Corn Syrup with Cane Flavor".

H. O. FAIRCHILD,
Attorney for Plaintiff in Error.

792 [Endorsed:] State of Wisconsin, in supreme court.
T. H. Grady, plaintiff in error, vs. State of Wisconsin,
defendant in error. Assignment of Errors in State Supreme Court.
Greene, Fairchild, North & Parker, attorneys for plaintiff, Green
Bay, Wis.

793 In the Supreme Court of the State of Wisconsin.

T. H. GRADY, Plaintiff in Error,
vs.
STATE OF WISCONSIN, Defendant in Error.

UNITED STATES OF AMERICA,
State of Wisconsin, in Supreme Court, ss:

I, Clarence Kellogg, clerk of the supreme court of the state of Wisconsin, do hereby certify that the paper writing hereto attached is a true and correct copy of the assignment of errors made and filed in the supreme court of the state of Wisconsin by said T. H. Grady, in the above entitled cause and is hereby transmitted to the supreme court of the United States in connection with and as a part of the transcript of the record in said cause.

And I do further certify that under the rules of said supreme court of the state of Wisconsin the errors assigned by the plaintiff in error in said court are contained in, and only contained in, the printed brief of said plaintiff in error. That in said cause in said supreme court of said state, said plaintiff in error did duly file his brief containing his assignments of error, and that the copy hereto annexed is a true and correct copy thereof.

In witness whereof I have hereunto set my hand and the seal of the supreme court of the state of Wisconsin this 28 day of July, 1910.

[Seal Supreme Court of Wisconsin.]

CLARENCE KELLOGG,
Clerk of the Supreme Court of the State of Wisconsin.

794 UNITED STATES OF AMERICA,
In Supreme Court:

T. H. GRADY, Plaintiff in Error,
vs.
THE STATE OF WISCONSIN, Defendant in Error.

It is Hereby Stipulated by and between the parties hereto that the entire record in this action, as transmitted, from the Supreme Court of the State of Wisconsin to the Supreme Court of the United States, shall be printed under the rules of said latter court, by the clerk thereof, except the exhibits numbered 38 to 129 inclusive, referred to in the bill of exceptions contained in said record—being advertisements of Karo Corn Syrup published in numerous newspapers and magazines—which exhibits are contained in a book marked on the front cover "Circuit Court. Dane County. Wisconsin. Filed April 17, 1909. Lawrence O. Larson, Clerk." and on the back "16 Corn Products." It is further stipulated that in the argument and consideration of this cause in the Supreme Court of the United States reference may be made to such exhibits, as they are contained in said book, with the same force and effect and to the same extent as though each such exhibit had been printed with the remaining portions of the said record.

Dated this 8th day of October, 1910.

H. O. FAIRCHILD,
Attorney for Plaintiff in Error.
JOHN M. OLIN,
BURR W. JONES,
Attorneys for Defendant in Error.

795 [Endorsed:] Original. United States of America. In Supreme Court. George McDermott, plaintiff in error, vs. The State of Wisconsin, defendant in error. Stipulation. 660/22,281.

796 [Endorsed:] File No. 22,280. Supreme Court U. S. October term, 1910. Term No. 660. T. H. Grady, pl'ff in error, vs. The State of Wisconsin. Stipulation to omit certain portions of the transcript of record in printing. Filed October 24, 1910.

Endorsed on cover: File No. 22,281. Wisconsin Supreme Court. Term No. 113. T. H. Grady, plaintiff in error, vs. The State of Wisconsin. Filed August 1st, 1910. File No. 22,281.

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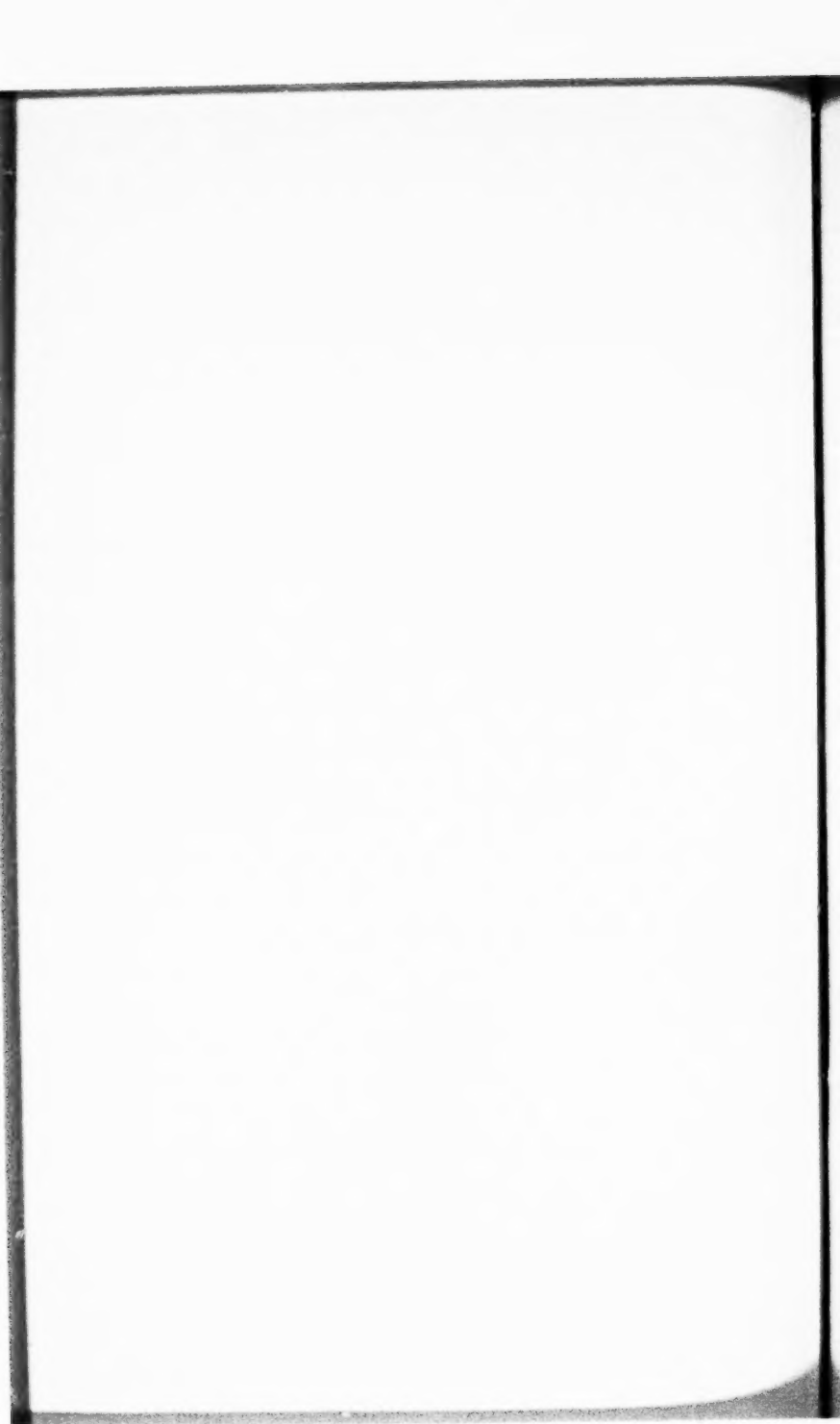
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UNITED STATES OF AMERICA, IN SUPREME COURT.

No. 113.

T. H. GRADY, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

No. 112.

GEORGE McDERMOTT, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

BRIEF FOR PLAINTIFFS IN ERROR.

STATEMENT OF THE CASES.

These two cases are here on writs of error to the supreme court of the state of Wisconsin, severally sued out by T. H. Grady and George McDermott, to review judgments of the said court affirming their conviction in the circuit court of Dane county, in that state, upon separate complaints made against them by the assistant dairy and food commissioner of the state, in the municipal court of that county, and subsequently separately removed by appeal from the latter court, after conviction, to the circuit court of the county, where the plaintiffs in error—hereinafter called defendants—were by stipulation between the parties tried together, without a jury (Grady Transcript, 36; McDermott Trans., 34), for similar offences, separately convicted and fined—from which separate judgments of conviction each appealed to the supreme court of the state, where the cases were heard together, and the judgments of the lower court affirmed (Grady Trans., 36, 465-468; McDermott Trans., 34, 480-493). Both cases are before this court at this time on separate records, being numbered respectively 112 and 113, but are so nearly identical in law and fact that their consideration together is entirely proper.

CASE NO. 113.

The complaint against Grady—being case No. 113—charged (Grady Trans., 18) that on March 2, 1908, at the village of Oregon, in said Dane county, he “did unlawfully have in his possession, with intent to sell, and did offer and expose for sale and did sell, a certain article, product, compound and mixture, composed of more than seventy-five per cent of glucose and less than twenty-five per cent of refiner’s syrup, said refiner’s syrup being then and there mixed with said glucose, and that the can containing said glucose and mixture was unlawfully branded and labeled ‘Karo Corn Syrup with Cane Flavor,’ and was further then and there unlawfully branded and labeled ‘Corn Syrup 85%,’ contrary to the statute in that case made and provided.” The statute violated is chapter 557, laws of Wisconsin for 1907, the material parts of which are found in the margin.*

CASE NO. 112.

The complaint against McDermott, being case No. 112, was identical in every respect with that against Grady, except as to the wording of the label, which in the McDermott case

*An Act to amend sections 1 and 2 of Chapter 152, laws of 1905, making the same sections 4601-1a, 4601-2a, 4601-3a, statutes of 1898, relating to the sale of syrups, molasses, glucose mixtures and maple syrup mixtures, and to protect the public health.

“Section 1. * * * No person * * * by himself * * * or agent * * * shall sell, offer or expose for sale, or have in his possession with intent to sell, any syrup, maple syrup, sugar-cane syrup, sugar syrup, refiner’s syrup, sorghum syrup or molasses mixed with glucose, unless the barrel, cask, keg, can, pail or other original container, containing the same, be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture, as follows:

Third. In case such mixture shall contain glucose in a proportion exceeding 75 per cent, by weight, it shall be labeled and sold as ‘Glucose flavored with Maple Syrup,’ ‘Glucose flavored with Sugar-cane Syrup,’ * * * ‘Glucose flavored with Refiner’s Syrup’ * * * as the case may be. The labels provided for in this section shall be printed in type not smaller than eight-point, Brevier caps, and shall bear the name and address of the manufacturer or dealer. * * * In all mixtures in which glucose is used in the proportion of more than 75 per cent, by weight, the name of the syrup or molasses mixed with the glucose for flavoring purposes and the words showing that such syrup or molasses is used as a flavoring, as provided in this section, shall be printed on the label of each container of such mixture in the same color and in the same style of type, but not larger than ten-point caps. The mixtures or syrups designated in this section shall have no other designation or brand than herein required, that represents or is the name of any article which contains a saccharine substance * * * Nor shall any of the aforesaid glucose, syrup, molasses or mixtures contain any substance injurious to health or any other article or substance otherwise prohibited by law in articles of food.” (Italics ours, except in title.)

Approved July 10, 1907.

Published July 11, 1907.

designated the mixture as "Karo Corn Syrup" and the ingredients as "10% Cane Syrup, 90% Corn Syrup" (McDermott Trans., 18).

The defendants were severally retail merchants at Oregon, Dane county, Wisconsin, and shortly before March 2, 1908, had each bought for himself for resale as such merchant, of wholesale grocers in Chicago, and severally received by rail from that city, twelve half gallon tin cans or pails of the food articles designated in the complaints, respectively, each shipment being contained in a wooden box. When the goods were received at their respective stores, the defendants took them from the boxes, put them on their shelves for sale at retail to their customers, and destroyed the boxes, as was customary with each of them in such and similar cases (Grady Trans., 116; McDermott Trans., 114). On March 2, 1908, the complainant bought of each of the defendants, in regular course of trade, a can of the syrup (Grady Trans., 36-38; McDermott Trans., 34-36), and thereupon made complaint against him, as above stated, in the municipal court of Dane county.

ISSUES INVOLVED.

(1) In all three courts the defendants severally alleged and insisted that the statute he was charged with violating was unconstitutional as in contravention of the Commerce Clause of Article I, Section 8, of the constitution of the United States, because an unwarranted regulation of interstate commerce, and of the Fourteenth Amendment of the same constitution, because it deprived him of his liberty and property without due process of law, and denied to him the equal protection of the laws (Grady Trans., 21, 10-12, 466-473; McDermott Trans., 21, 10-12, 481-488).

(2) It was also alleged and contended by the defendants separately in each of the three courts:

(a) That the state statute is invalid, irrespective of whether the can or pail of syrup sold was an original unbroken package within the meaning of the Act of Congress, known as the Food and Drugs Act of June 30, 1906 (Chap. 3915, Vol. 34 of U. S. Stats. at L., p. 768), because, by one inseparable clause of the statute, accomplishing all its results by the same general words, it undertakes to regulate both interstate and intrastate commerce in the food product in question, *after* the passage of said Food and Drugs Act, which, as to interstate commerce, covers the entire field of false, misleading or deceptive branding of the food article in question, as well as its container.

(b) That the can of syrup had in possession, offered for

sale and sold by each defendant, was, in law and fact, the "original unbroken package" of the Food and Drugs Act; and every act charged against the defendants with respect thereto was an act of, and done in, interstate commerce; and the label on the can was in exact accord with the provisions of such act of Congress and the express rulings, in that behalf, of the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor theretofore made under and by virtue of said act;

(c) The state statute is not within the police powers of the state, because it arbitrarily and unreasonably deprives the defendants of the right to use an appropriate and truthful name for the article he sells—a name by which it has been long and favorably known to the public, and especially to consumers, and the use of an appropriate and truthful label on the container thereof—which label is not calculated to deceive or mislead any one; and seeks to arbitrarily and unreasonably compel the use of a name for the article unknown to and misunderstood by the general public, and especially to consumers of the article, and supposed by them to represent an entirely different article, of an offensive character and source, to the great detriment and damage of the defendants' trade in the article, and therefore repugnant to the Fourteenth Amendment to the federal constitution.

RULING OF LOWER COURT ON SUCH ISSUES.

The state supreme court ruled against the *first* of the above contentions for the reason—as we understand the decision—that the Food and Drugs Act of Congress does not relate to or cover traffic, even in the original unbroken package, by an importer of a food product, though labeled in accord with that act, but relates alone to the introduction into another state, by interstate commerce, of such article. As to the defendants' *second* contention the court held that the individual can or pail, after it was taken from the wooden box in which it reached the state, was no longer in interstate commerce, but a part of the mass of the property of the state, and for that reason subject to the police powers of the state. As to the defendants' *third* contention, the court held—but without proof to sustain the holdings, as defendants claim—that the term "syrup," as commonly and properly understood, designates only such articles of food as are "in common use as table syrups, *such as maple, sugar-cane, and refiner's syrup*"; and that *such syrups* are the product of sugar-producing plants, and in their pure and unmixed state are known by their inherent and peculiar colors,

flavors and viscosity, and are by these characteristics commonly distinguished and known in the trade as syrups, while the chief ingredient in defendants' article, unmixed, is not *such* a syrup, and hence the natural result of applying the term "corn syrup" to such ingredient or the mixture itself, is to mislead consumers into the belief that they are obtaining a table syrup of the variety and kind commonly known as syrup—a product of sugar-producing plants.

Proofs in the Two Cases.

The entire proofs on the trial are pertinent to both cases, with the single exception that the evidence showing that refiner's syrup gives a cane flavor is pertinent to the Grady case only.

It is not denied by the defendant in error—hereinafter called the State—that the article had in possession, offered for sale and sold by each defendant, is, and for many years has been extensively used as an article of food throughout the United States and Canada (Grady Trans., 374, 354-358; McDermott Trans., 372, 352-357), and the proofs show without contradiction, to some considerable extent in European countries (Grady Trans., 394; McDermott Trans., 392). The mixture is admitted to be of corn syrup or glucose—whichever is the truthful name—and refiner's syrup or sugar-cane syrup, in the proportions stated on the labels (Grady Trans., 183; McDermott Trans., 181-182). It is also admitted that the article is made from the starch of corn in the kernel, by a well recognized continuous process, and as the lower court holds, that it produces a food product, pure, clean, nutritious and wholesome (Grady Trans., 220, 226, 227; McDermott Trans., 218, 224, 225). It is not claimed by the State that there is anything false, deceptive or misleading on the label except the name "corn syrup," which it is claimed should be called "glucose."

RULINGS OF FEDERAL AUTHORITIES

Sustaining Truthfulness of "Corn Syrup."

Prior to the date of the defendants' alleged offences, the truthfulness of the defendant Grady's label came before the federal administrative authorities, acting under the Food and Drugs Act, and the following decision was made (Grady Trans., 85; McDermott Trans., 83):

"Washington, D. C., February 13, 1908.

We have each given careful consideration to the labeling, under the Pure Food Law, of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of

corn, and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup as corn syrup, and if to the corn syrup there is added a small percentage of refiner's syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'corn syrup with cane flavor.'

GEORGE B. CORTELYOU,
Secretary of the Treasury.

JAMES WILSON,
Secretary of Agriculture.

OSCAR H. STRAUSS,
Secretary of Commerce and Labor."

NOMENCLATURE OF ARTICLE IN STANDARDS PROMULGATED BY DEPARTMENT OF AGRICULTURE.

It also appears without contradiction that the Department of Agriculture, acting under the provisions of the Act of Congress of March 3, 1903 (Ch. 1008, 32 Stats. 1158), authorizing the establishment by the Secretary of Agriculture, "of standards of purity for food products," on November 10, 1903, issued its Circular No. 10, not only denominating "glucose" a "syrup," but using the name "corn syrup" as a synonym for "glucose," mixed or unmixed with syrup or molasses; and also declaring that "*Standard glucose syrup or corn syrup is glucose syrup or corn syrup containing not more than twenty-five per cent of water and three per cent of ash*" (Grady Trans., 74; McDermott Trans., 72).

The Department of Agriculture, under date of December 20, 1904, still acting under the above mentioned Act of Congress, issued its Circular No. 13 as a substitute for said Circular No. 10, declaring the same standards and nomenclature for "glucose syrup or corn syrup" unmixed or mixed with syrup or molasses, as contained in Circular No. 10 (Grady Trans., 74, 441-442; McDermott Trans., 72-73, 440).

On March 8, 1906, the Department of Agriculture, again acting under the same Act of Congress, promulgated a third circular, No. 17, again declaring the same standards and nomenclature for "glucose syrup or corn syrup" unmixed or mixed with syrup or molasses (Grady Trans., 74-75, 441-442; McDermott Trans., 73, 440).

REPORT OF SCIENTISTS TO COMMISSIONER OF INTERNAL REVENUE, 1883.

In the report made to the United States Commissioner of Internal Revenue in 1883, by a committee of scientists appointed at his request by the National Academy of Sciences,

and composed of Professor Chandler of Columbia University, Professor Barker of the University of Pennsylvania, William H. Brewster, Professor of agricultural chemistry in Yale College; Professor, now President, Ira Remsen of Johns Hopkins University, at page 73 appears the statement, as the proofs show the facts to be, that "Starch-sugar appears in commerce in a great variety of names as follows: (a) The liquid varieties, glucose, mixing glucose, mixing *syrup*, *corn syrup*, jelly glucose, confectioner's crystal glucose" (Grady Trans., 209, 212; McDermott Trans., 207-208, 210-211).

SCIENTIFIC PUBLICATIONS, ENCYCLOPEDIAS, DICTIONARIES, ETC.

In numerous American, English and German scientific publications, dictionaries, encyclopedias, government census and other reports and publications, not only is glucose recognized by name as a "syrup," but the name "corn syrup" is declared to be commercially a synonym for glucose. These publications will be more particularly referred to later on in this brief where the facts are considered.

TESTIMONY OF WITNESSES AS TO NOMENCLATURE OF THIS ARTICLE.

Professor Chandler, an eminent food chemist (Grady Trans., 206-208; McDermott Trans., 205-207), was a witness at the trial for the defendants and showed the utmost familiarity, from study and practical experience, with the whole subject of the manufacture of sugar and glucose, during the past 40 years in the United States and Europe. He testified that he had known of the name of glucose made in this country from corn as far back as 1872 (Grady Trans., 210, 258-259; McDermott Trans., 208, 257-258). He not only verified the correctness of the report to the Commissioner of Internal Revenue, in the respect above stated as to the names under which the liquid varieties of glucose were known in commerce and trade, but he said "*The most proper and most truthful name*" that can be applied to glucose is "corn syrup." When asked why he made this statement he replied (Grady Trans., 212; McDermott Trans., 210), "*because it is a syrup and because it is made from corn, and there is no other syrup that is made from corn or can be made commercially or practically.*" When asked if there is a consensus of opinion among scientific men of note as to the propriety of the name "corn syrup" as a synonym for glucose, he replied, "there is a consensus of opinion among the most distinguished chemists of the country that 'corn syrup' is a proper name for this substance" (Grady Trans., 212; Mc-

Dermott Trans., 210). He gave a list of 24 of these noted chemists and submitted letters from a number of them giving their reasons for the opinions they had expressed on the subject (Grady Trans., 213, 215-216, 459-462; McDermott Trans., 211, 213-214, 457-460).

Professor Chandler testified that the name "syrup" has been given to solutions of glucose practically ever since glucose was discovered in 1811 (Grady Trans., 214; McDermott Trans., 212). He gave a list of 45 publications, books and writings, beginning in 1813 and ending in 1907, in which glucose is denominated a "syrup." This list will be found in the record (Grady Trans., 455-459; McDermott Trans., 454-457). The list includes German, English and French authors. He said the list is far from being complete, as it was compiled in his library in an afternoon, and he said he presumed he could have found *twenty times as many such references* if he had thought it desirable (Grady Trans., 214; McDermott Trans., 213). In Europe glucose is not made from corn but from potatoes and other starch producing sources. It may be produced from wheat, rye, oats, barley, buckwheat, sago, rice, tapioca and any other starchy product, and even from wood fiber and linen (Grady Trans., 218; McDermott Trans., 216). In Europe it is called "potato syrup" and "starch syrup," because of its peculiar source (Grady Trans., 211-212, 417; McDermott Trans., 209-210, 415).

Manufacturers of glucose, syrup mixers, syrup brokers, wholesale and retail dealers, railroad freight expert and traveling salesmen were sworn on the trial, who testified they had known glucose mixed with refiner's syrup as "corn syrup" for from 10 to 38 years, many of whom had sold it during all these years to tradesmen and to consumers as "corn syrup." More particular reference to this testimony will be made later in this brief in connection with the consideration of the facts.

The proofs show that the article sold by the defendant Grady as "Karo Corn Syrup with Cane Flavor," and by defendant McDermott as "Karo Corn Syrup," from a time reaching back of said Circular No. 10 of the Agricultural Department, November 10, 1903, down to the passage of the Wisconsin statute in question and to the time of the decision of the three secretaries already quoted, February 13, 1908, had been extensively advertised in trade journals, daily and weekly newspapers and in magazines of local and general circulation throughout the United States, including Wisconsin, so that the public and the consumers were familiar with the article as "corn syrup" and "Karo Corn Syrup with Cane Flavor" prior to the passage of

the Wisconsin act in question. The same mixture, with varying amounts of flavoring syrup, had been extensively sold in Wisconsin for many years, first under the name of "corn syrup," then later under the name "Karo Corn Syrup," and then later under the name "Karo Corn Syrup with Cane Flavor," and under the various corn syrup labels found in the transcripts (Grady Trans., at Record pages 708 to 726 inclusive, and in the McDermott Trans., at Record pages 708 to 727 inclusive).

MICHIGAN STATUTE AND DECISION.

It was shown that on May 15, 1903, before said Circular No. 10 of the Agricultural Department was issued, the state of Michigan passed Public Act No. 123, entitled "An Act in relation to the sale of corn syrup," which required the branding of the containers of such mixtures as defendants' either as "glucose mixture" or "corn syrup" (Grady Trans., 348; McDermott Trans., 346-347). The material parts of the Michigan statute are found in the margin.*

On December 1, 1903, in *People vs. Harris*, 135 Mich. 136, the supreme court of Michigan declared:

"In this country corn syrup and glucose are not only commercially synonymous terms, but the term 'glucose' is obnoxious to many, if not a majority of the public, and is misunderstood by them." (Italics ours.)

The Michigan court in the same case also declared:

"It is a fair presumption that the legislature in enacting this law recognized the obnoxious character of the term 'glucose' among the people, and permitted and intended to permit a mixture of corn syrup and cane syrup to be sold under the name 'corn syrup.'"

WISCONSIN STATUTE OF 1905.

The Wisconsin legislature, after the Michigan statute and decision, passed an act which took effect May 4, 1905, as Chapter 152, which prescribed a labeling for this food product as "glucose mixture" or "corn syrup." The Wisconsin act followed the Michigan act in almost identical language and is entitled "An Act relating to the sale of syrups, molasses and

*"Section 1. * * * Nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell, any cane syrup or beet syrup mixed with glucose, unless the barrel, cask, keg, can, pail or other package containing the same be distinctly branded or labeled 'Glucose Mixture' or 'Corn Syrup' in plain Gothic type * * * Such mixture or syrup shall have no other designation or brand than herein required that represents or is the name of an article which contains a saccharine substance."

glucose mixtures." The material parts of the Wisconsin statute are found in the margin.*

OTHER STATE STATUTES OR REGULATIONS ON SAME SUBJECT.

The states of Illinois, Iowa, New Hampshire, Ohio and Louisiana also, either by statute or regulations of the established departments of the state government (Grady Trans., 414-416; McDermott Trans., 412-414), prior to the passage of the Wisconsin act here complained of, recognized "corn syrup" and "glucose" as synonymous terms.

TARIFF SCHEDULES OF RAILWAY COMPANIES OF THE COUNTRY.

From 1900 down to the date of the defendants' trial in the circuit court, the Western Trunk Line Railroads, as well as the larger eastern lines of railroad, established and maintained separate freight rates for glucose unmixed and mixed with syrups or molasses and designated the mixture as "corn syrup" (Grady Trans., 330-331, 455-456; McDermott Trans., 329-330, 453-454).

CIRCULAR NO. 19 OF DEPARTMENT OF AGRICULTURE.

On June 26, 1906, long prior to the decision of the three secretaries, already quoted—in which decision the same Secretary of Agriculture participated—the Department of Agriculture issued its fourth circular, No. 19, from which the name "corn syrup," as a synonym of glucose, either mixed or unmixed, was omitted. The reason for the omission, as declared in the letter of the committee of chemists submitting the standards to the

* "Section 1. * * * ; and no person shall sell, offer or expose for sale, or have in his possession with intent to sell, any syrup, sugar-cane syrup, sorghum syrup or molasses, mixed with glucose, unless the mixture be sold as and for compound glucose mixture, or *corn syrup*, and unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled 'glucose mixture' or 'corn syrup,' in plain Gothic type, not less than three-eighths of an inch square, with the name and percentum by weight of each ingredient contained therein, plainly stamped, branded or stencilled on each package in plain Gothic letters not less than one-fourth of an inch square. Each and every package of syrup, either simple or mixed, shall bear the name and address of the manufacturer. *Such mixtures of syrups shall have no other designation or brand than herein required that represents or is the name of an article which contains a saccharine substance* * * * ; nor shall any of the aforesaid glucose, syrups, molasses or mixtures contain any substance injurious to health nor any other article or substance otherwise prohibited by law in articles of food." (Italics ours.)

Secretary of Agriculture, seems to have been "because of the unsatisfactory condition of trade nomenclature as applied thereto" (Grady Trans., 442; McDermott Trans., 440).

PUBLIC PREJUDICE AGAINST GLUCOSE AS A NAME FOR DEFENDANTS' FOOD SYRUP.

The proofs show, and the state circuit court finds as a fact—and such finding of fact is left undisturbed by the supreme court—that the public generally would not purchase the defendants' product if it were put out under the name of "glucose" (Grady Trans., 437; McDermott Trans., 435), because, as one of the witnesses declared, "I thought (until I investigated and found otherwise) like everybody else that it was some nasty thing made out of dangerous articles." The same witness declared that "that was the understanding that most people had of it." He "never had been able," he said, "to find a woman that knew what glucose was yet" (Grady Trans., 150, 155; McDermott Trans., 148, 153-154). Another witness, a wholesaler and for many years a retail grocer, declared that customers do not know what "glucose" is (Grady Trans., 288; McDermott Trans., 287). Professor Chandler said (Grady Trans., 260; McDermott Trans., 259), "it (glucose) has been represented in the public press as some dirty thing which is not fit for human food." Mr. Bradshaw, a mixer of syrups for 43 years, testified that the article would not sell as well under the name "glucose" as "corn syrup" (Grady Trans., 176; McDermott Trans., 175).

ASSIGNMENTS OF ERROR IN GRADY CASE—NO. 113.

(1) The supreme court of Wisconsin erred in not finding and adjudging chapter 557 of the laws of 1907—of the violation of which the defendant was convicted—invalid as repugnant to that part of Sec. 8, Art. I of the constitution of the United States known as the Commerce Clause.

(2) The state court erred in finding and adjudging that the can or pail of "Karo Corn Syrup with Cane Flavor," which the defendant was convicted of having in his possession with intent to sell, offering for sale and selling, was not, at the time, an article of interstate commerce and, as to its label, within the purview, and regulated by, the provisions of the Act of Congress known as the Food and Drugs Act of June 30, 1906.

(3) The said state court erred in finding and adjudging that the said can or pail of "Karo Corn Syrup with Cane Flavor" was at the time and in the condition stated in the complaint aforesaid against the defendant, an article of intra-

state traffic, subject to the regulations of the state under its police power, as to the labeling or branding thereof.

(4) The said state court erred in not finding and adjudging that the said can or pail of "Karo Corn Syrup with Cane Flavor," at the time and in the condition stated in the said complaint, was an "original unbroken package," within the meaning and subject to the provisions of said Act of Congress known as the Food and Drugs Act.

(5) The said state court erred in not finding and adjudging said chapter 557 of the laws of Wisconsin for 1907 invalid in its entirety—that is as to both interstate and intrastate commerce, in the mixture designated in the said complaint as "Karo Corn Syrup with Cane Flavor"—for the reason that said chapter 557 is an attempted regulation by one inseparable clause, accomplishing all its results by the same general words, of the branding and misbranding of the containers of such article, in both interstate and intrastate commerce, after the congress had, by the said Food and Drugs Act, fully covered the same subject as to interstate commerce, by regulations in conflict with those contained in said chapter 557.

(6) The said state court erred in finding and adjudging that the possession, offer to sell and sale of which the defendant is convicted, were not within the provisions of said Food and Drugs Act, nor protected nor regulated thereby, for the reason that such Food and Drugs Act—as the state court held—is not intended to cover traffic in food products, in the original unbroken package, by the person receiving such products into one state from another through interstate commerce.

(7) The said state court erred in finding and adjudging that the brand or label used by defendant is false, deceptive and misleading to consumers of the food product defendant is convicted of possessing, offering for sale and selling, under the brand or label of "Karo Corn Syrup with Cane Flavor" for the mixture, and "corn syrup" for the principal ingredient.

(8) The said state court erred in not finding and adjudging said chapter 557 invalid as repugnant to the Fourteenth Amendment of the constitution of the United States, in that it deprives the defendant of his liberty without due process of law.

(9) Said state court erred in not finding and adjudging said chapter 557 invalid as repugnant to the Fourteenth Amendment of the constitution of the United States, in that it deprives the defendant of his property without due process of law, and also denies to him the equal protection of the laws.

ASSIGNMENTS OF ERROR IN McDERMOTT CASE—
NO. 112.

(1) The supreme court of Wisconsin erred in not finding and adjudging chapter 557 of the laws of 1907—of the violation of which the defendant was convicted—invalid as repugnant to that part of Sec. 8, Art. I of the constitution of the United States, known as the Commerce Clause.

(2) The state court erred in finding and adjudging that the can or pail of "Karo Corn Syrup," which the defendant was convicted of having in his possession with intent to sell, offering for sale and selling, was not, at the time, an article of interstate commerce and, as to its label, within the purview, and regulated by, the provisions of the Act of Congress known as the Food and Drugs Act of June 30, 1906.

(3) The said state court erred in finding and adjudging that the said can or pail of "Karo Corn Syrup" was at the time and in the condition stated in the complaint aforesaid against the defendant, an article of intrastate traffic, subject to the regulations of the state under its police power, as to the labeling or branding thereof.

(4) The said state court erred in not finding and adjudging that the said can or pail of "Karo Corn Syrup" at the time and in the condition stated in the said complaint was an "original unbroken package," within the meaning and subject to the provisions of said Act of Congress known as the Food and Drugs Act.

(5) The said state court erred in not finding and adjudging said chapter 557 of the laws of Wisconsin for 1907 invalid in its entirety—that is as to both interstate and intrastate commerce, in the mixture designated in the said complaint as "Karo Corn Syrup"—for the reason that said chapter 557 is an attempted regulation by one inseparable clause, accomplishing all its results by the same general words, of the branding and misbranding of the containers of such article, in both interstate and intrastate commerce, after the Congress had, by the said Food and Drugs Act, fully covered the same subject as to interstate commerce, by regulations in conflict with those contained in said chapter 557.

(6) The said state court erred in finding and adjudging that the possession, offer to sell and sale of which the defendant is convicted, were not within the provisions of said Food and Drugs Act nor protected nor regulated thereby, for the reason that such Food and Drugs Act—as the state court held—is not intended to cover traffic in food products, in the original unbroken package, by the person receiving such products into one state from another through interstate commerce.

(7) The said state court erred in finding and adjudging that the brand or label used by defendant is false, deceptive and misleading to consumers of the food product defendant is convicted of possessing, offering for sale and selling, under the brand or label of "Karo Corn Syrup" for the mixture, and "corn syrup" for the principal ingredient.

(8) The said state court erred in not finding and adjudging said chapter 557 invalid as repugnant to the Fourteenth Amendment of the constitution of the United States, in that it deprives the defendant of his liberty without due process of law.

(9) Said state court erred in not finding and adjudging said chapter 557 invalid as repugnant to the Fourteenth Amendment to the Constitution of the United States, in that it deprives the defendant of his property without due process of law, and also denies to him the equal protection of the laws.

ARGUMENT AND AUTHORITIES.

I.

The Wisconsin statute is inoperative and void in its entirety—that is, as to both interstate and intrastate commerce, and as to both defendants; and there was, therefore, no law in that regard in Wisconsin, under which either of the defendants could be prosecuted or convicted.

FIRST. The statute, by a single indivisible and inseparable clause, accomplishing all its results by the same general words, attempts to regulate, as to branding and misbranding of containers, all traffic, both interstate and intrastate, in certain food products, including the defendants' syrup, after the passage by Congress of the Food and Drugs Act of June 30, 1906, which covers the whole field of the misbranding of food products and their containers in interstate commerce, and by regulations in direct conflict with those prescribed by the state statute.

(1) Congress having so acted the subsequent state statute was void *ab initio*.

Morgan's S. S. Co. vs. Louisiana Board of Health, 118 U. S. 544.

Covington, etc., Bridge Co. vs. Kentucky, 154 U. S. 204, 212.

Gulf, etc., R. Co. vs. Hefley, 158 U. S. 98, 104-105.

Interstate Commerce Com. vs. Detroit, etc., R. Co., 167 U. S. 633, 642.

Keller vs. United States, 213 U. S. 138, 146.

Southern Ry. Co. vs. Reid, 222 U. S. 424, 436-443.

Northern Pacific R. Co. vs. Washington, 222 U. S. 370, 377-379.

Savage vs. Jones, 225 U. S. 501.

In *Keller vs. United States*, *supra*, this court said:

"In *Gulf, Colorado & Santa Fe R. Co. vs. Hefley*, 158 U. S. 99, 104, the rule is stated in these words: 'Generally it may be said in respect to laws of this character, that though resting upon the police power of the state, they must yield whenever congress, in the exercise of the powers granted to it, legislates upon the express subject matter, for that power, like all other reserve powers of the state, is subordinate to those in terms conferred by the constitution upon the nation.'"

So in *Southern Ry. Co. vs. Reid*, *supra*, page 436, this court said:

"It is well settled that if the state and congress have concurrent powers, that of the state is superseded when the power of congress is exercised."

There is a recognized field of regulation, incidentally affecting interstate commerce, over which the state and the federal government, as shown by these authorities, "have concurrent jurisdiction." In this field the states are permitted to legislate until congress assumes to legislate upon the same subject, when the power of the states in that respect ceases, to the extent that congress itself assumes to occupy the field; but when congress acts, since its power is supreme and exclusive, any attempt thereafter by the state to adopt regulations covering the same subject is absolutely futile and void from the beginning.

Lower Court Holds State Statute to Cover Both Interstate and Intrastate Commerce.

(2) The state court, recognizing the supremacy of the Food and Drugs Act of Congress, in case of conflict between it and the state statute, held in these cases that the latter was in fact intended as a regulation of both interstate and intrastate commerce. The court uses this language (*Grady Trans.*, 482; *McDermott Trans.*, 467; 143 Wis. 18, 29):

"The legislation, so far as it may be said to affect interstate commerce, falls within what has been termed the field of 'concurrent jurisdiction' of the state and federal governments, and wherein the state may enact appropriate regulations, provided they do not conflict with congressional legislation on the same subject. *Brown vs. Houston*,

114 U. S. 622; *State vs. C., M. & St. P. Ry. Co.*, 136 Wis. 407." (Italics ours.)

(3) This construction of the state statute by the court is conclusive upon this court

Illinois Central R. Co. vs. Illinois, 163 U. S. 142, 152.

W. W. Cargill Co. vs. Minnesota, 180 U. S. 452.

Olsen vs. Smith, 195 U. S. 332, 342.

(4) Not only does the state statute include *all* sales, interstate and intrastate, by *all* persons whomsoever, but expressly includes all sales in *any* "original container" whatever, which necessarily includes sales by importers—we shall employ the word importer herein for convenience—in the original unbroken package, and provides in effect that *all* branding or labeling except that prescribed by the statute shall be deemed a misbranding, because it prohibits and punishes all others. Most of the packages named in the Wisconsin statute are original unbroken packages of interstate commerce, that is barrels, casks, kegs and pails.

SECOND. It must be concluded, therefore, that if Congress, by the Food and Drugs Act of 1906, intended to fully cover the subject of the misbranding of food products in interstate commerce, all power of the state to prohibit brands or labels except those prescribed by its statute, are withdrawn as effectually as if it had never existed. In such case, the federal power under the constitution being supreme and exclusive in that particular field, its exercise in the Food and Drugs Act rendered inoperative and void *ab initio* the state statute thereafter passed, and those regulations are, as we will assume for the present but consider later, in irreconcilable conflict with those prescribed by Congress.

THIRD. Assuming for the moment such conflict between the state statute and the Food and Drugs Act—which question we will consider later—the state statute, if inoperative and void as to interstate commerce, must be held void as to intrastate commerce also, within the ruling of all the cases, and therefore wholly inoperative and void as to both the defendants, whether their acts complained of constituted interstate or intrastate traffic.

United States vs. Ju Toy, 198 U. S. 253, 262-263.

Employers Liability Cases, 207 U. S. 463, 497-498, 509.

Illinois Central R. Co. vs. McKendree, 203 U. S. 514, 529-530.

El Paso & N. E. R. Co. vs. Gutierrez, 215 U. S. 87, 98.

International Text Book Co. vs. Pigg, 217 U. S. 91, 112, 113.

Trademark Cases, 100 U. S. 82.

Connolly vs. Union Sewer Pipe Co., 184 U. S. 540.

State vs. C., M. & St. P. R. Co., 136 Wis. 417, 417.

Gilbert-Arnold Co. vs. Superior, 91 Wis. 353, 357

Huber vs. Martin, 127 Wis. 412, 445.

(1) In *United States vs. Ju Toy*, supra, 262, this court said:

"But the relevant portion (of the statute) being a single section, accomplishing all its results by the same general words, must be valid as to all that it embraces or altogether void. *An exception of a class constitutionally exempted can not be read into such general words merely for the purpose of saving what remains. That has been decided over and over again.*" (Italics ours.)

The rule of the *Ju Toy* case is recognized by the Wisconsin court in *State vs. C., M. & St. P. R. Co.* supra.

In such event, it is conclusively presumed that the state legislature intended the statute to operate as a whole or not at all, and that the moving consideration for the enactment of the one part of the statute was the reason for the enactment of the other part, and hence the whole statute must stand or fall together.

So in *International Text Book Co. vs. Pigg*, supra, 113, this court used this language:

"But if they (parts of the statute) are so mutually connected with and dependent on each other, as conditions, considerations or compensations for each other as to warrant a belief that the legislature intended them as a whole, and that, if all could not be carried into effect, the legislature would not pass the residue independently, *and some parts are unconstitutional, all provisions which are thus dependent, conditional or connected must fall with them.*" (Italics ours.)

The same rule finds almost identical expression in *Gilbert-Arnold Co. vs. Superior*, supra, 356, where the Wisconsin court used this language:

"If the void part of the statute is a compensation for or the inducement to the valid portion, so that looking at the whole act it is reasonably clear that the legislature would not have enacted the valid portion alone, then the whole act will be held inoperative and void."

APPLICATION OF THIS RULE TO CASES IN HAND.

(2) Applying the rule of these cases to the statute in question, it must be held invalid as a whole if invalid as to

interstate commerce, because it is not only conclusively presumed, from its inseparable character and the considerations which moved to its passage, as they appear from the act itself, that the portion regulating interstate commerce in such food products would not have been passed, but for the proofs in the record (Grady Trans., 99; McDermott Trans., 97) show that at the time of the passage of this statute, and for many years prior thereto and ever since, there were no corn syrup or glucose factories in Wisconsin. It is evident, therefore, that interstate traffic in the prohibited article was the chief, if not the sole consideration moving the legislature to the passage of the statute, and that the invalidity of the statute as to such interstate traffic must render the whole act invalid.

In this view of the statute, there was no law in Wisconsin prohibiting the use of the brand or label "Karo Corn Syrup with Cane Flavor," or the brand or label "Karo Corn Syrup" for the defendants' mixtures, or "corn syrup" for their chief ingredient, when the defendants sold the cans or pails of syrup in question, whether they were sold in interstate or intrastate traffic—and it was immaterial, therefore, what label or brand the cans bore.

THIRD. The judgment of the Wisconsin court to the contrary of this contention is based solely upon a misconception of the scope of the Food and Drugs Act of Congress.

The state court sustained the state statute because it held the view that the Food and Drugs Act of Congress does not relate to or cover *traffic by the importer*, in food products, even in the original unbroken package, in the state to which they have been transported from another state, but relates solely to and covers the introduction into interstate commerce, and thereby into such foreign state, of such prohibited products, and not to traffic in them after such introduction.

The Wisconsin court said (Grady Trans., 469; McDermott Trans., 484-485; 143 Wis. 33):

"It will be observed that this part of the (Food and Drugs) act *does* attempt to regulate the traffic in these articles in the course of their importation from one state into another, *without reference to a sale thereof after their arrival at their destination*. But in the next clause the sale thereof is also regulated in the District of Columbia and territories of the United States. The terms of the act plainly indicate that Congress extended its regulations expressly to the acts of sales in the District of

Columbia and the territories, *and the provisions of that regulation did not extend to the act of sale by the importer from one state to another.*" (Italics ours.)

It is quite evident the judgment of the Wisconsin court would have been favorable to the defendants, as to the inoperative effect in its entirety of the state statute, had it not been for this misconception of the scope of the Food and Drugs Act.

(1) The view taken by the state court of the federal act is a palpable misconception of its scope and purpose.

Even if it should be admitted—but which is denied—that the regulations of the Food and Drugs Act are not in *express* terms applied to the labels or brands of food products, when being sold or held in possession with intent to sell in the original unbroken package by the importer, yet the necessary effect of the act is to apply its regulations to all such sales, or having in possession with intent to sell.

(a) It must, of course, be admitted that the federal act fully covers the subject of misbranding as to the name—a fruitful source of deception—of all food products and their ingredients, when and as they are introduced into interstate commerce.

The term "misbranded" as defined by the federal act is most comprehensive and all-inclusive as to falsity and deception in branding. It is made to "apply to *all* articles of food or ingredients which enter into the composition of food, the package or label on which shall bear *any* statement, design or device regarding such article, or the ingredients or substances contained therein, *which shall be false or misleading, in any particular*, and to any food product which is falsely branded as to the state, territory or country in which it is manufactured or produced" (Sec. 8, Food and Drugs Act). This question will be further considered later on.

(b) It must also be admitted that there is no federal statute expressly or impliedly permitting state regulation of the labels or brands of such products, *while they remain in interstate commerce, after such introduction with power to sell, under the labels or brands permitted by the federal act.*

(c) Nor can it be denied that within all the authorities, possession for the purpose of sale and sale itself are the object of importation, and essential ingredients of that intercourse of which importation constitutes a part, and that such possession and right of sale are "as essential an ingredient, as indispensable to the existence of the entire thing, then, as to importation itself." In fact, such right of possession and

“sale must be considered as component parts of the power to regulate commerce.”

Brown vs. Maryland, 12 Wheat. 419.

Greek-American Sponge Co. vs. Richardson Drug Co., 124 Wis. 469, 475.

Schollenberger vs. Pennsylvania, 171 U. S. 1.

McDermott and Grady vs. State, 143 Wis. 18, 30.

(d) Nor can it be denied that “in the absence of congressional legislation, therefore, the right to import a lawful article of commerce from one state to another continues until a sale (by the importer) in the original unbroken package in which the article is introduced into the state.”

Schollenberger vs. Pennsylvania, *supra*.

Greek-American Sponge Co. vs. Richardson Drug Co., *supra*, 475 and cases cited.

Bowman vs. Ry. Co., 125 U. S. 465.

Leisy vs. Hardin, 135 U. S. 100, 125.

Lottery Case, 188 U. S. 321, 361.

American Steel & Wire Co. vs. Speed, 192 U. S. 500, 522.

American Express Co. vs. Iowa, 196 U. S. 133, 142.

Heyman vs. Southern R. Co., 203 U. S. 270.

Savage vs. Jones, 225 U. S. 501.

In *American Express Co. vs. Iowa*, *supra*, 142, this court said:

“In *Leisy vs. Hardin*, 135 U. S. 100, it was held that the law of the state of Iowa forbidding the sale of liquor in that state could not be made to apply to liquors shipped from another state into Iowa, *before the merchandise had been delivered in Iowa and there sold in the original package, without causing the statute to be repugnant to the constitution of the United States*. In *Rhodes vs. Iowa*, 170 U. S. 412, the same doctrine was reiterated, except that it was qualified to the extent called for by the provisions of the Act of Congress of August 8, 1890 (26 Stats. 313), commonly known as the Wilson Act.” (Italics ours.)

The effect of the Wilson Act was there held to be “that such merchandise (liquors) when transported from one state to another *should lose its character as interstate commerce upon completion of delivery under the contract of shipment and before sale in the original package*.”

But there is no Act of Congress, similar to the Wilson Act, by virtue of which the food product here in question loses

"its character as interstate commerce upon completion of delivery under the contract of shipment, *and before sale* in the original package," so that state regulation may step in and prescribe labels or brands before sale.

Plumley vs. Massachusetts, 155 U. S. 461, given so much force by the lower court, is not opposed to this contention, as assumed by that court. The state statute there involved was to "prevent deception in the manufacture and sale of imitation butter," and it was sustained only after overruling the claim of the plaintiff in error that it was in conflict with the Act of Congress on the same subject. The court declared, at page 167:

"The vital question in this case is, therefore, unaffected by the Act of Congress or by regulations that have been established in execution of its provisions."

(e) The Food and Drugs Act having assumed to prescribe what in some cases shall be deemed a lawful branding and what in all cases shall be deemed a misbranding of a food product, when, and as it is introduced into interstate commerce, necessarily legalizes such branding as it either affirmatively authorizes or is not within the definition of "misbranded" declared in that act, so long as the product remains in interstate commerce.

Congress having passed no statute authorizing the state to set aside the standards of the Food and Drugs Act, as to brands or labels, or to prescribe a branding of any other character than that prescribed by it, *while the article remains in interstate commerce*, it necessarily follows that the branding which accords with such standards, at the time of its introduction into interstate commerce, continues a legal branding until the article ceases to longer be in interstate commerce, that is until after sale by the importer in the original package—the article being retained by the importer in such package.

Heyman vs. Southern R. Co., 203 U. S. 270, 276.

Adams Express Co. vs. Kentucky, 206 U. S. 129, 137.

(f) An article declared by Congress to be a lawful subject of interstate commerce can not be declared otherwise, by state courts or legislatures, whatever the character of the article may be.

Leisy vs. Hardin, *supra*, 110, 125.

Lottery Case, *supra*, 361.

The cases just cited hold directly that whatever may be the character of the article, *or, as in this case, however labeled*, if recognized by Congress as a lawful subject of interstate commerce in that condition, it does not lie with state

legislatures, under the guise of the police power or otherwise, without authority from Congress, to declare that such an article is not, in its then condition, a lawful subject of interstate commerce.

(g) In this view of the Food and Drugs Act, the prescribing by Congress of certain standards or rules by which to determine whether a food product is or is not misbranded, when introduced into interstate commerce, must, *in the absence of some express restriction by Congress*, upon the operation of such standards or rules—and there is no such restriction here—be held to make them operative, exclusive of state legislation down to the point beyond which the article no longer remains in interstate commerce.

Thus, without other consideration, the state statute is void in its entirety as an attempted regulation of interstate commerce in an article which, at the time, was within the express regulations of the Food and Drugs Act as to branding and misbranding. We insist, therefore, there was no Wisconsin statute under which either defendant could be convicted of the offenses of which he stands convicted.

II.

But the Food and Drugs Act in express terms—notwithstanding the holding of the Wisconsin court to the contrary—embraces within its regulations, as to brands and misbrands, all sales in interstate commerce, and, of necessity, possession for that purpose, and therefore covers traffic, in the imported article in the receiving state, in the original unbroken package by the importer; and its provisions are in direct conflict with those of the state statute—hence, within the cases cited, the state statute is void as an entirety and ineffective for any purpose against the defendants.

(1) Section 2 of the Food and Drugs Act, in the first place, prohibits the introduction into any state from any other state of an article of food, drugs or liquor, which is adulterated or misbranded within the meaning of the act; and then names two classes of persons subject to punishment under the section; (a) any person who ships or delivers for shipment from any state to any other state any such adulterated or misbranded article; and (b) any person who shall receive in any state from any other state, "*and having so received shall deliver or offer to deliver to any other person such articles in the original unbroken package, for pay or otherwise.*"

It seems clear that the purpose of this act is to render contraband the adulterated or misbranded articles of the statute, and to keep them out of interstate commerce, no matter

for what purpose they may be introduced. (*Hipolite Egg Co. vs. United States*, 220 U. S. 45, 54.) The act accordingly punishes the person who introduces them into interstate commerce and also the person who in another state receives them after being so introduced, and disposes of them in the original unbroken package, *whether for sale or otherwise*.

(a) One who imports and sells in the original unbroken package an adulterated or misbranded article of food or drugs certainly "receives," within the meaning of the act, such article from another state, and having received it delivers it to another "for pay"; and is therefore subject to the penalty of the act. So he who offers for sale, offers to deliver the article, and he who sells delivers it, "for pay" to another, within the meaning of the act. A completed sale or offer to sell includes and contemplates a delivery "for pay."

"Blackstone's definition of a sale is a transmutation of property from one man to another in consideration of some price."

Butler vs. Thomson, 92 U. S. 412, 414.

7 *Words and Phrases*, 629 and cases cited.

"A sale in the ordinary sense of the word is a transfer of property for a fixed price in money or its equivalent."

Iowa vs. McFarland, 110 U. S. 471, 478.

"A sale imposes an obligation to deliver a commodity and receive money for it."

Pittsburg Melting Co. vs. Reese, 12 Atl. 362.

"A delivery is an inseparable incident to all sales."

Parker vs. Donaldson, (Pa.) 2 Watts. & Sar. 9, 19.

Commonwealth vs. Williams, (Mass.) 6 Gray, 1, 6, 9.

That a delivery of goods "for pay" would include a sale of such goods would seem clear. The language of the federal act—"shall deliver or offer to deliver to any other person such article in the original unbroken package for pay or otherwise"—is concise and comprehensive, and evidently intended to include every disposition of the prohibited article which the receiver could possibly make in the original unbroken package, which involves a delivery of it to another. That would certainly include a sale; and the Wisconsin court, we think, was in error in holding otherwise.

(b) The proviso of section 2 contains the provision "if such article shall be in fact sold or offered for sale for domestic use or consumption, then this proviso shall not exempt such article from the operation of any of the other provisions

of this act." This language clearly indicates that articles in interstate commerce sold or offered for sale for domestic use or consumption, instead of for export or foreign sale, no matter where manufactured, sold or offered for sale, whether in the states, territories or District of Columbia, are embraced within the regulations of the act.

(c) The provisions of section 3 are equally significant of the same scope of the act. The uniform rules and regulations which the Secretary of Agriculture, the Secretary of the Treasury, and the Secretary of Commerce and Labor are authorized to make to carry into effect the provisions of the act, expressly include the collection and examination of foods and drugs "*which shall be offered for sale in unbroken packages in any state other than that in which they have been respectively manufactured or produced.*" This certainly includes food products offered for sale by the receiver of them from another state, and is certainly traffic in such receiving state. Why provide these rules and regulations for the collection and examination of samples of foods and drugs being so offered for sale, unless the regulation of such traffic, *for the purposes of the act*, is within the purview of the act?

(d) Section 4 goes on to declare that the examination of specimens of food and drugs which may be collected under the provisions of section 3 shall be made "for the purpose of determining from such examination whether such articles are adulterated or misbranded within the meaning of the act." If such articles, being offered for sale, as provided in section 3, are not within the regulations of the act as to branding, then they can not, of course, be "adulterated" or "misbranded within the meaning of the act;" and the provision for their examination to ascertain whether they are so adulterated or misbranded would be beyond the power of Congress.

(e) Section 7 also provides that a drug shall be deemed adulterated if its strength or purity falls below the professed standard or quality "*under which it is sold.*" To what sale does this refer? It is not confined, directly or indirectly, to sales in the territories or in the District of Columbia, but clearly includes those made by the importer in the original unbroken package in the states as well.

(f) Section 8 also declares that an article of food or drugs shall be deemed misbranded, "if it be an imitation of, or offered for sale under the name of another article," or "if it be labeled or branded so as to deceive or mislead *the purchaser.*" Can there be any doubt that these provisions have reference to sales made to consumers by importers, and that it is their protection that is being safeguarded by the statute?

(g) So section 9 provides that no dealer—that is the man

who sells to the consumer in the receiving state—*shall be prosecuted under the provisions of the act* if he can establish a guarantee, signed by the wholesaler, jobber or manufacturer or other person residing in the United States from whom he purchased the article, to the effect that the same is not adulterated or misbranded “within the meaning of the act.” This provision is not confined to dealers in the territories or the District of Columbia, but extends as well to dealers generally, selling or offering for sale foods and drugs in the states. How could such a provision as this have operation under the Wisconsin statute?

(h) The provisions of section 10 clearly indicate that the act includes within its prohibitions all traffic in a contraband article, by the importer in the original unbroken package, in the state to which it has been transported from another state. This section provides that any adulterated or misbranded article of food, drugs or liquor “that is being transported from one state, etc., to another, *for sale*, or having been transported remains *unsold or in the original unbroken package*, is subject to seizure for confiscation by condemnation. If the article be condemned, it shall be delivered to the owner upon payment of all costs of the libel and the giving of a bond to the effect that such articles *shall not be sold or otherwise disposed of contrary to the provisions of this act*.” This language clearly indicates that a sale of the contraband article in the original unbroken package by the importer of it from another state “is contrary to the provisions of this act.” How could this be true unless the act forbids its sale in the state to which the article has been transported?

(i) The fact that section 10 also denounces any and all sales or offers to sell of contraband articles in the territories or District of Columbia, without reference to the character of the package containing it, does not militate against the construction of the act we are contending for. It was necessary that different clauses of the section be devoted to regulations for the disposition of an article when it is in interstate commerce and when for sale in the territories or the District of Columbia, because in the former case, the disposition of the article, according to the theory of the act, must be while it remains in the original unbroken package, but in the latter case no such limitation is required, hence the two cases might not be embraced in one clause of the statute without applying the same limitations to both, which was not the purpose nor within the power of Congress.

(3) The federal act would be emasculated and rendered almost trivial by a construction which would exclude from its regu-

lations, all sales in the original unbroken package, by the importer of the prohibited article, as was held by the Wisconsin court.

(a) When the sole purpose of the act—the protection of the purchaser and consumer of food products and liquors from their harmful adulterations and deceptive misbrandings—is considered, why say that Congress has stopped short of affording full protection in that respect, in the states as well as in the territories and District of Columbia, so far as relief could be afforded within the powers of Congress? Why should Congress withhold from the regulations and penalties of the Food and Drugs Act traffic in adulterated and misbranded articles in states, to which they have been transported from other states, and guard against such traffic in the territories and District of Columbia? Interstate traffic is of infinitely greater importance, because of its greater magnitude, than traffic in the territories and the District of Columbia. It is inconceivable, therefore, that Congress should deliberately safeguard the latter and wholly omit from its protection the former, as the state court held.

(b) So to merely penalize the introduction, into commerce between the states or, into another state, of a contraband article, without punishing its sales to purchasers and consumers in such latter state, while the article still remains in interstate commerce, is stopping far short of effective legislation to the end sought after. An article is as much *in* interstate commerce and within the power of Congress to regulate while it is in the hands of an importer in the original unbroken package and being sold or offered for sale by him, or is in his possession with intent to sell, as it is at any stage of the transportation from one state to another for the purpose of sale. In fact the all-important part of interstate commerce in foods, drugs and liquors, so far as concerns their adulteration or misbranding, is disposition of them to purchasers or consumers in the receiving state. Their misbranding or adulteration would harm no one while they are in mere physical transit from one state to another. It is only after the article has reached its destination and is being sold by the importer that any substantial harm could come from its adulteration or misbranding. Sale is the object of such transportation, and to say that the act falls short of affording relief against the disposition of a contraband article by sale is not only to impeach the good sense of Congress in the enactment of the law, but to lose sight as well of its sole purpose, as indicated by the plain language of the act.

(c) That the protection of purchasers and consumers in the states as well as in the territories and District of Columbia is the purpose of the act is also shown by the decision of the courts.

United States vs. Chas. L. Heinle Specialty Co., 175 Fed. 299.

United States vs. Sixty-five Cases of Liquid Extracts, 170 Fed. 449, 453.

United States vs. Sixty-eight Cases of Syrup, 172 Fed. 781, 783.

United States vs. 100 Cases of Teepee Apples, 179 Fed. 985, 987.

In the case from 172 Fed. 783, the court uses this language:

"The plain and manifest object of the statute under consideration (Food and Drugs Act) is to protect the purchasers and consumers of drugs and food supplies from fraud and imposition in the purchase or consumption of such articles under false representations, and to insure that the commodities are such as they are represented to be."

In the case from 179 Fed. 987, the learned district judge uses this language:

"Adulteration of goods and false labeling had become so common that it was well-nigh impossible to purchase pure goods or that which was called for. The same was true as to medicines. Congress undertook to remedy it. The one purpose was to prevent the sale of adulterations, the other purpose was to enable a purchaser to obtain what he called for and was willing to pay for." (Italics ours.)

Again the court said, in the same case:

"In this case *the label* is very attractive to the eye, and of course its only purpose is to *sell* the fruit. But for that the label would not be on the can. That is what *the purchaser at retail looks for*, and that is what, more than any other statement or argument, induces the purchase." (Italics ours.)

Then finally the court said:

"The statute is to protect *such consumers* and not producers."

REPORT OF SENATE COMMITTEE ON BILL.

(d) The proceedings before the Senate Committee on Manufactories, before which Senate Bill No. 198 and House Bill No.

6295—in which the present act had its origin—were pending, show that the consumer and not the dealer was the person sought to be protected.

The report of the committee, No. 1209, ordered printed March 5, 1904 (to which reference may be had in construing the statute, *Church of the Holy Trinity vs. United States*, 143 U. S. 457, *Chesapeake etc. R. Co. vs. Manning*, 186 U. S. 246, *Oceanic Navigation Co. vs. Stranahan*, 214 U. S. 320, 333), at pages 112 and 113, contains this significant statement by the chairman of the committee, Senator Heyburn, before a full committee and without dissent from any one, in response to certain arguments then being made by a representative of the New York Board of Trade and Transportation, viz:

"I should like to call your attention to the fact that the discussions we have had before us have been from the standpoint that it is the dealer who is to be protected. *I would suggest that the object of this bill is not to protect the dealer. It is to protect the person who consumes the articles. * * ** It is against the dealer that we are seeking to protect the purchaser—the consumer." (Italics ours.)

Again the chairman said, in the same connection:

"We are not trying to protect the jobber against the wholesaler, or retailer against the jobber, or the wholesaler against the manufacturer, except as it may be incidentally."

(e) So the opinion of the Attorney General of the United States, given to the President April 10, 1907, on the same subject (Grady Trans., 416-417; McDermott Trans., 414-415) states:

"The primary purpose of the Pure Food Law is to protect against fraud *the consumers* of food and drugs; as an incident or secondary purpose it seeks to prevent, or at least discourage, the use of deleterious substances * * *. *According to the recognized canons of construction, the language of this provision must be interpreted with reference to and in harmony with its primary purpose.*" (Italics ours.)

(f) There is a presumption against a construction which would render a statute ineffective and inefficient.

Bird vs. United States, 187 U. S. 118, 124.

(g) So it seems clear from the history of the Food and Drugs Act when before Congress, and from its evident and declared purpose as deduced from its history, as well as from

the plain language of the act itself, the rulings of the administrative departments of the government, and the decisions of the courts, that sales of adulterated and misbranded articles of food in the original unbroken package by the person receiving the same, through interstate commerce from another state, are expressly prohibited by the Food and Drugs Act. To effectuate the purposes of the act the whole subject of adulteration and misbranding of such articles is fully covered by the act.

This was the condition of legislation by Congress when Chapter 557 of the laws of Wisconsin for 1907 was passed, and that act was, therefore, as to interstate commerce in misbranded food products, beyond the power of state legislation and void. This fact within all the authorities cited rendered the state statute void as an entirety.

The Wisconsin court was therefore in error when it sustained the validity of the state statute on the theory that the Food and Drugs Act did not "extend to the act of sale of an importation from one state to another," and for that reason was not in conflict with the state statute; and was also in error when it failed to rule that the defendants were unlawfully convicted by the circuit court of Dane County whether the sale of the cans of syrup in question were acts of interstate or of intrastate commerce.

III.

But it may be contended that even if the federal act covers the sale of misbranded articles in original unbroken packages by the importer of them into the state, there is no conflict between the regulations prescribed by the Food and Drugs Act and those contained in the state statute, and hence state regulation is permissible.

Even a very cursory view of the two statutes will show in addition to the points of conflict already referred to other radical conflict.

FIRST. The Food and Drugs Act expressly authorizes the very branding which the state statute prohibits in this case.

Section 8, sub. 4, of the federal act, provides among other things:

"That an article of food which does not contain any added poisons or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

"First. In the case of mixtures or compounds, *which may be now or from time to time hereafter known as articles of food under their own distinctive names*, and not an

imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where such article has been manufactured or produced."

It is in proof without contradiction that "corn syrup" contains no poisons or deleterious ingredients, but is a wholesome and nutritious article of food (Grady Trans., 67, 68, 219, 220, 374-375; McDermott Trans., 66, 67, 217, 218, 373-374). This syrup also had the distinctive name "corn syrup" at the time the federal act was passed. That name was not only one in common use at the time and for many years before, commercially, between dealers and consumers, railroad companies and shippers, and in statutes of other states, dictionaries, encyclopedias and many publications, *but was expressly recognized as a truthful name by Chapter 152 laws of Wisconsin of 1905*, already referred to, which required this very food product to be called either "corn syrup" or "glucose mixture." The chief ingredient in the defendants' mixture, as well as the mixture itself, were accordingly known by the distinctive name "corn syrup," and were known to dealers and consumers extensively by that distinctive name when the federal act was passed.

The mixture or its chief ingredient was not an imitation of any other article, nor was it offered for sale under the distinctive name of any other article. It was offered for sale under its own statutory name, and a distinctive name by which it had been long familiarly known to the public. The statement of the name of the place where defendants' article is manufactured is upon the label or brand of the cans of syrup sold by them, respectively.

The federal act therefore authorized the use of the distinctive name "corn syrup" for both the mixture and its chief ingredient as certainly as though it had been specially designated in the act as the true name of the article. The act declares that the article *is not misbranded* when it bears such name upon the label. *That was equivalent to saying the article, so branded, is truthfully and lawfully branded.* But the Wisconsin statute of 1907, here being challenged, made it a crime to call defendants' mixture or the chief ingredient in it by the distinctive name expressly authorized by the federal act. It not only can not be called "corn syrup," but it is made by the statute a crime to have even the name "syrup" on the label—with whatever explanatory statement it may be accompanied on the container,—the latter clause of the statute forbidding any **representation** or name of the article on the label or brand which contains a saccharine substance. This prohibition is directly levied against the use of the word "syrup."

SECOND. The principles upon which the two acts proceed are irreconcilably in conflict.

Whether an article is misbranded or not is a judicial question under the federal act—one of fact to be determined in a judicial proceeding, upon proofs, and by a jury if the defendant so elects (Sec. 10); while under the state statute the question is legislative—is determined conclusively and arbitrarily by the statute itself. Under the state statute the accused has no day in court as to the truthfulness of the name he uses for the article or its ingredients. He may not in any case of dispute show by proofs that the label, under which he sells or holds in possession for that purpose, is truthful, because that is not the test of his guilt. Under the federal act judicial proceedings are provided for, in which the burden of showing that the label or brand is, in fact, false, deceptive or misleading to the consumer, is cast upon the government, which must assert and prove the fact.

United States vs. Six Hundred Fifty Cases of Tomato Catsup, 166 Fed. 773.

In re Wilson, 168 Fed. 566.

A statute which prescribes a specific branding, from which there may be no departure, and which denounces all other brands, as does the state statute, is certainly in conflict with a statute which submits the whole question of the truthfulness of the branding to the determination of a court, controlled by certain fixed standards, which are designated in the act itself, and by such rules and regulations as may be prescribed by designated officers to effectuate such standards.

It is perfectly evident, therefore, that the standards prescribed by the federal act are ~~con~~clusive of all other regulations on the subject of misbranding of food products in interstate commerce.

State statute does not seem to be based upon the falsity of all other names for the article than "glucose," but is a health measure.

The state statute does not even intimate that the name "corn syrup" is false or deceptive, but arbitrarily requires the use of "glucose" instead of "corn syrup" without rhyme or reason, except as the title to the act indicates, for the protection of the public health—to which the subject of the act has, in fact, no relation whatever.

Decision of the Three Secretaries.

No surer evidence of the conflict between the state and federal acts is needed than the fact that the Secretary of Agriculture, the Secretary of the Treasury, and the Secretary of Commerce and Labor, acting under the Food and Drugs Act, in February, 1908, before the sale or having in possession of which the defendants stand convicted, expressly ruled that the very label which the can in the Grady case bore is a truthful and lawful label in every particular under the federal statute. The state statute, according to the ruling of the state court—which would seem to be mere assumption, because there is no proof to sustain it—in effect denounces the label as false and deceptive, while the administrative officers of the government, acting under the federal act, declared it to be truthful and lawful. The former statute makes an act criminal which under the latter statute the highest administrative agencies of the government declare to be free from taint.

There was, therefore, no law in Wisconsin regulating the branding of the syrup possessed, offered for sale and sold by the defendants, since a void statute is no law; and therefore, so far as any state statute is concerned, it was immaterial what brand the syrup in question may have borne either in interstate or intrastate traffic.

IV.

It may be claimed here, as was contended in the lower courts, that the defendants can not be heard to complain of the invalidity of the state statute, by reason of its inseparable inclusion of both interstate and intrastate commerce, because the individual can of syrup, after its removal from the wooden box in which it was received from Chicago, was not the original unbroken package of the Food and Drugs Act, and hence its sale was intrastate traffic subject to state regulation, and the defendants were not harmed by such invalidity.

This contention we think proceeds upon a false assumption of both law and fact.

(1) The cases which assert the doctrine implied by this claim are those in which the invalid portions of the statute are separable from its valid portions, or where the invalid portions do not serve as moving considerations for the valid portions, and in which, also, the case of the one attacking the statute is within the valid portion of the statute. In such case the valid

portion of the statute would stand and be enforceable as the law of the state, notwithstanding the invalid portions, to the same effect and extent as though there were no invalid portions, or the valid portions were a separate statute. It would not concern the attacking party in such a case that other portions of the statute which did not affect him are invalid.

But here the entire statute is void. Because of this fact there is no law which can be enforced in any of its parts. The situation is as though no statute had ever been passed. It has no validity for any purpose or to any extent, or as to any person.

Employers Liability Cases, supra, 497, 498, 509.

Illinois Central R. Co. vs. McKendree, supra 514, 517.

El Paso & N. E. R. Co. vs. Gutierrez, 215 U. S. 87.

Huntington vs. Worthen, 120 U. S. 97, 101, 102.

Norton vs. Shelby Co., 118 U. S. 429, 444.

In re Rahrer (C. C. A.), 43 Fed. 556.

State vs. Redmon, 134 Wis. 89, 101.

State vs. Paige, 78 Vt. 28 (62 Atl. 1017).

Cooley Const. Lim. (7th Ed.) 259.

The Vermont court, in *State vs. Paige*, supra, thus states the rule we contend for:

"But, the respondent, not being affected by the search and seizure clauses (of the statute), is not in the position to challenge their constitutionality (*State vs. Scampini*, 77 Vt. 92; 59 Atl. 201), *unless those clauses are of such a character that their invalidity would vitiate the whole act.*" (Italics ours.)

International Text Book Co. vs. Pigg, supra, 113.

Employers Liability Cases, supra, and *El Paso & N. E. R. Co. vs. Gutierrez*, supra, both proceed upon the assumption that the plaintiff in error might insist upon the invalidity of the statute, when void as a whole, although it was not in a class, the inclusion of which rendered the statute void. In the latter case, at page 96, the court plants its decision upon the separable character of the clauses of the act being considered. In the *Employers Liability Cases* the negligent acts with which the defendants were being charged, under the federal act there involved, were done in interstate transportation, and yet on the challenge of the defendants, the act was held void as a whole, because it included, in an inseparable clause, employees engaged in intrastate as well as interstate transportation.

In *Illinois Central R. Co. vs. McKendree*, supra, the act complained of on the part of the plaintiff in error, defendant below, was one of interstate transportation, in violation of a regulation of the Secretary of Agriculture providing for the

moving of live stock within a certain quarantine district. The regulation was held void because it included *intrastate* as well as interstate commerce in one inseparable provision. The right of the secretary was to make regulations as to interstate commerce only, but he included intrastate as well.

Here the legislature had power to deal with intrastate traffic only and it undertook to include in one inseparable clause interstate commerce also. Hence if the defendants' acts were in intrastate commerce they might be heard to say the statute is void *as a whole*, because of its unwarranted inclusion of interstate commerce.

"An unconstitutional act is not a law; it confers no rights; imposes no duties; it affords no protection; it creates no office; it is, in legal contemplation, as inoperative as though it had never been passed."

Norton vs. Shelby Co., supra, 442.

Hopkins vs. Clemson College, 221 U. S. 636, 644.

State vs. Redmon, supra, 101.

Savage vs. Jones, 225 U. S. 501.

(2) The plaintiffs in error in these cases are personally interested in defeating the statute, as the judgment against each is based wholly on its invalid provisions. It matters not why it is void so long as it is void in its entirety. It would certainly be an anomaly to give any force, *as law*, to a statute which is "as inoperative as though it had never been passed," and when it is being attacked by one who is convicted of and being punished for its violation. Such an act, not being law, is incapable of violation in a legal sense.

V.

But the defendants' possession and sale of the individual can of syrup were in interstate commerce, and, therefore, regulated by the Food and Drugs Act because such can of syrup was an original unbroken package of that act, and therefore not within the police power of the state.

FIRST. The possession of such cans by the defendants severally, as importers, with intent to sell, and the sale of them by the defendants, even after their removal from the box, were acts of interstate traffic, within the regulations of the federal statute, and not acts of intrastate traffic subject to state regulation, as was held by the state court.

(1) We are not unmindful of the general rule adopted by

this court in *Austin vs. Tennessee*, 179 U. S. 343, and many kindred cases, for determining when an imported article ceases to be in interstate commerce and becomes a part of the mass of the property of the state, subject to its police powers. But that is a rule adopted by the court in the absence of congressional regulation declaring otherwise in a particular class of cases. The question here involved is: "Has Congress, in order to effectuate the purposes of the Food and Drugs Act, declared otherwise in that act, and if so had Congress the power to so declare?"

(2) Congress has the power to declare a rule of its own choice in that respect.

It is within the sound discretion of Congress what means it will adopt to make effective its power to regulate commerce between the states, unless there is some limitation upon that discretion found in the federal constitution—and none is there found.

Lottery Case, 188 U. S. 321, 355, 356-357.

Buttfield vs. Stranahan, 192 U. S. 470, 492, 495.

Interstate Commerce Com. vs. Brimson, 154 U. S. 447, 473.

United States vs. 43 Gallons of Whisky, 93 U. S. 188, 194.

It was said by this court in the *Brimson* case, *supra*, 473:

"Congress is not limited in its employment of means to those that are absolutely essential to the accomplishment of objects within the scope of the powers granted to it. It is a settled principle of constitutional law that 'the government which has a right to do an act and has imposed upon it the duty of performing that act, must, according to the dictates of reason, be allowed to select the means; and those who contend that it may not select *any appropriate means*—that one particular mode of effecting the object is excepted—take upon themselves the burden of establishing that exception.' 4 Wheat. 316. *The test of the power of Congress is not the judgment of the courts that particular means are not the best that could have been employed to effect the end contemplated by the legislative department. The judiciary can only inquire whether the means devised in the execution of a power are forbidden by the constitution.*" (Italics ours.)

Louisville & Nashville R. R. vs. Mottley, 219 U. S. 467, 480 and cases cited.

(3) The original package doctrine is a rule of decision adopted by the courts and does not preclude action by Congress extending or curtailing such rule.

(a) The fact that the courts, in the absence of legislation by Congress on the subject, have declared that an article remains in interstate commerce only so long as it is contained in the package in which such article is usually, in good faith, shipped from manufacturer to wholesaler, or from wholesaler to retailer, and that it ceases to be in interstate commerce when removed from such package, does not prevent Congress in its sound discretion, from enacting, as it has in the Food and Drugs Act, for the protection of purchasers or consumers of food products moving in interstate commerce, that such an article shall remain in interstate commerce until sold by the importer; and that when it is sold or offered for sale by him to the purchaser or consumer it shall be contained in a package branded or labeled in such a way as to truthfully indicate the article contained in it, and the ingredients of such article; and that the brand or label shall contain no statement, design or device which shall be false or deceptive in any particular.

(b) Nor will such previous rulings of the courts prevent Congress from declaring, as we think it has in the Food and Drugs Act, that the package of food put up by the manufacturer or wholesaler for delivery to the consumer—such dealer being the importer—shall, for the purpose of so protecting the consumer, be deemed the original unbroken package of interstate commerce, which is made the subject of its regulations.

In re Spickler, 43 Fed. 653, 657.

In re Rahrer, 140 U. S. 545, 562.

Swift & Co. vs. United States, 196 U. S. 375, 400.

United States vs. Green, 137 Fed. 179, 184, 188, 189.

Caldwell vs. North Carolina, 187 U. S. 622.

Rearick vs. Pennsylvania, 203 U. S. 507.

POWERS OF CONGRESS IN THAT RESPECT.

In the Rahrer case the court considered the power of Congress to enact the so-called Wilson Act (26 Stats. 313, Ch. 728), which provides that intoxicating liquors transported from one state to another shall become subject to the operation of the state laws, *upon their arrival in such latter state*. The act was held to be within the power of Congress. This court used, at page 562, language which is especially applicable here:

"The power over interstate commerce is too vital to the integrity of the nation *to be qualified by any refinement of reason.* The power to regulate is solely in the general government, and it is an essential part of that regulation *to prescribe the regular means of accomplishing the introduction and incorporation of articles into and with the mass of property in the country or state.* 12 Wheat. 448. No reason is perceived here, if Congress chooses to provide that certain designated subjects of interstate commerce shall be governed by a rule *which divests them of that character at an earlier period of time than would otherwise be the case, it is not within its competency to do so.*" (Italics ours.)

The court here clearly asserts the power of Congress to prescribe when and in what manner an article of interstate commerce shall become incorporated "into and with the mass of property in the country or state." If Congress possesses the power to divest an article of its character as a subject of interstate commerce, *at an earlier period of time than would ordinarily be the case under the original package rule, adopted by the courts in the absence of legislation by Congress,* why shall it not also possess the power to reasonably *extend* the period when "the introduction and incorporation into and with the mass of property in the country or state" shall be accomplished? No reason is perceived for any distinction between the two cases. The power of Congress to regulate commerce between the states would embrace the one as well as the other.

If it so will, Congress may, as we claim it has in the Food and Drugs Act, for the protection of the consumer of foods or drugs, say that such an article shall not be incorporated into the mass of property of the state until sold by the retailer—if he be the importer—to the consumer in the package in which it is put up by the manufacturer or wholesaler for delivery to the consumer.

In the case of *In re Spickler*, supra, the court was considering the effect of the Wilson Bill and used this language:

"It is apparent to every one that at some time or upon the happening of some event, imported property loses that character and becomes subject to the laws of the state; *it is for Congress, which possesses the power to regulate commerce, to define the time or event which shall have the effect of subjecting importations to state control, and this is what is done by the Wilson Bill in regard to intoxicating liquors.*" (Italics ours.)

Why, then, may not Congress declare by the Food and Drugs Act that the selling by the importer of an imported article, in the individual package in which it is at the time contained, instead of the larger package in which many such individual packages were imported, shall be a sale in the original unbroken package, and that such sale is an act of interstate traffic?

So in *Swift & Co. vs. United States*, supra, page 400, the court uses this language, equally pertinent here:

"But we do not mean to imply that the rule, which marks the point at which state taxation or regulation becomes permissible, necessarily is beyond the power of interference by Congress, in cases where such interference is deemed necessary for the protection of commerce among the states."

We know of no limitation in the constitution upon the power of Congress to prescribe such regulations, whatever be their character; as it may deem wise or proper for the protection of the consumer of foods and drugs while they remain in interstate commerce; and for that purpose to determine at what point they may be deemed to have entered, and at what point of time to have departed from such commerce.

Lottery Case, 188 U. S. 321.

Southern R. Co. vs. Reid, 222 U. S. 424, 440-441.

Savage vs. Jones, 225 U. S. 501.

The fact that the words "original unbroken package" are used in the Food and Drugs Act is not decisive that they are to be construed to mean the same as similar words when used by the courts in laying down the original package rule. The Food and Drugs Act itself defines the meaning of the words, and resort must be had to that act, its history and its evident purpose to ascertain their true meaning.

"It is undoubtedly the duty of the court, to ascertain the meaning of the legislature, from the words used in the statute, and the subject matter to which it relates; and to restrain its operation within narrower limits than its words import, if the court are satisfied that the literal meaning of its language would extend to cases which the legislature never designed to embrace in it."

McKee vs. United States, 164 U. S. 287, 293 and cases cited.

A Kentucky statute provided that "Any person or persons not a registered pharmacist, may open, own or conduct a drug store or pharmacy, if he or they keep constantly in charge of the same a registered pharmacist; but shall not himself or themselves sell or dispose of drugs or medicines, except proprietary or patent medicines, *in original packages.*" Construing this statute, the court in

Kentucky Board of Pharmacy vs. Cassidy, 74 S. W. 732,

said:

"The term 'original package,' as applied to the sale of patent and proprietary medicines, means, and is so understood by all persons, the small individual package or bottle as prepared for retail, and not the large box or package in which the small packages may have been shipped by the manufacturer." (*Italics ours.*)

The subject matter and purposes of the regulation are always to be considered in arriving at the meaning of a statute.

(c) The necessity for varying regulations as to when interstate shipments shall become incorporated into the mass of the property of the state, must, of course, be admitted as the character of the property or the purposes of regulation shall be different. If the protection of consumers of foods and drugs from deceptive branding or harmful adulteration is the purpose of a statute, as here, it is apparent that the package or container, *in which the consumer is to receive the article he purchases*, should be, or at least may be, if Congress so wills, the package that is to bear the label or brand that is to inform him what he is buying and the ingredients of it; otherwise the statute is ineffective to accomplish its evident and conceded purpose.

United States vs. Green, *supra*, 189.

FOR THE PROTECTION OF THE CONSUMER THE INDIVIDUAL CAN MUST BEAR THE LABEL.

(d) Where, as here, a food product is to be sold to the consumer in small cans, and not in the wooden case in which a number of such cans are introduced into the state, the protection of the consumer requires that the individual can should bear the label, which is to inform him what he is purchasing. Branding the wooden box, from which the individual cans are always taken and placed upon the shelves of the retailing importer, for sale to the consumer, would afford no protec-

tion whatever to him against misbranding. The wooden case bearing the label would not be exposed to the consumer, but, according to common knowledge, and as the proofs here show (Grady Trans., 116; McDermott Trans., 114), destroyed when the cans are taken from it. To say that *it* should bear the label and not the individual cans contained in it, would make it possible to practice upon consumers all manner of deception—the very thing sought to be guarded against by the statute. Such a construction would so emasculate the statute as to entirely destroy its efficiency for the only purpose for which it was enacted.

(2) But a construction of the Food and Drugs Act, which would make the wooden case or box containing the individual cans the original unbroken package, would also interfere in an unwarranted and oppressive manner with the customary methods of legitimate business, and should therefore be avoided if the act can reasonably bear, as it will, another construction.

(a) It is common knowledge that very frequently both druggists and grocers import in one large box, crate, barrel, or other container, a number of different kinds of drugs or food products, each one of which requires a different label. Of this fact the court will take judicial notice.

Nicol vs. Ames, 173 U. S. 509, 517.

Cleveland, etc., R. Co. vs. Jenkins, 174 Ill. 398 (51 N. E. 811).

American National Bank vs. Bushey, 45 Mich. 139.

Crystallized Water Co. vs. Schultz, 135 N. Y. Sup. 273.

There might be from a dozen to fifty distinct kinds of articles in the same large box or container. Wholesale houses have their regular broken package departments, where such packages are assembled in large containers for shipment. These articles are always taken out of the larger container and sold in the smaller packages by the retailer, and these are the packages that should bear the label. In such a case it would be absurd to say that the larger box or container, containing all these different articles—each requiring a different label—should bear as many different labels as there are different articles in the box or container. What protection would be afforded the consumer by fifty different labels on the large box, and none at all on the individual package that comes to him, especially when the former is sure to be destroyed and never to be seen by him? The act nowhere indicates, much

less requires, that this customary and convenient method of packing may separate small packages of different kinds of drugs or foods in a single box or other large container must be discontinued by wholesalers or manufacturers, in shipments in interstate commerce. Such a radical, useless and expensive departure from legitimate and customary business methods can not be considered to have been within the contemplation of Congress in the enactment of the Food and Drugs Act. The consumer receives from the dealer the individual container containing the article he buys, and is to consume—here the individual can of syrup—and common prudence would dictate that that container should bear the brand or label in order that he receive the protection of the act.

(b) It is the *contents* of the larger box or container, as contained in the smaller individual containers, and not the box itself that is being regulated under the Food and Drugs Act; and to say that the wooden box in which these individual containers are contained and which the consumer will never see is required to bear such a fruitless message to the consumer would utterly defeat the act.

(c) **But the act will bear no such construction.**

Referring to section 8, sub. 2, which declares when drugs are to be deemed misbranded, it is provided:

*"If the contents of the package, as originally put up, shall be removed in whole or in part and other contents shall have been placed in such package, or if the package fails to bear a statement on the label, of the quantity or proportion of any alcohol, morphine * * * contained therein, then the article shall be deemed misbranded."*
(Italics ours.)

Here it is made clear that the package "as originally put up" by the manufacturer or wholesaler, for sale to the consumer, and which contains the drug itself, and not the wooden box which contains such package, shall bear the label. If the contrary construction were to prevail, where the larger package contains a dozen or more different kinds of drugs, not one of them could be taken out of the box after being once put in, and a different kind of drug substituted in its place in the box without violating this provision of the statute, although no possible harm could come to anybody by making the exchange. Such a construction of the act would render it absurd.

(d) So in referring to foods (Sec. 8, sub. 4, par. 2), it is provided that an article shall be deemed misbranded:

* * * * *

“Second. In the case of *articles* labeled, branded or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word ‘compound,’ ‘imitation’ or ‘blend,’ as the case may be, *is plainly stated on the package in which it is offered for sale.*” (Italics ours.)

Here the statute is dealing with a food compound like the defendant Grady’s “Corn Syrup with Cane Flavor” and McDermott’s “Corn Syrup,” and the package which is to bear the label, brand or tag is plainly stated to be that “in which it is offered for sale”—in this case the can.

So it appears the acts of possession and sale by the defendants, respectively, were acts of interstate commerce within the regulations of the Food and Drugs Act, and not of intrastate commerce, as held by the state supreme court. Not only is the state statute void, therefore, because of its inseparable regulation of interstate and intrastate commerce, after the passage of the Food and Drugs Act, but the acts of the defendants were subject to the regulations of that act alone and not of the state statute. The defendants are not, therefore, precluded from asserting the invalidity of the state statute, whether their acts were acts of intrastate or interstate commerce.

VI.

The state statute deprives the defendants, respectively, of their liberty and property without due process of law, and denies them the equal protection of the laws, in violation of the Fourteenth Amendment of the federal constitution.

The defendants, respectively, had the right to sell the article in question, branded as it was—it concededly being wholesome, nutritious and free from all adulterations—unless the public safety would be injured or threatened thereby; and to deprive them of such right or penalize them for exercising that right not only deprives them of their property but of their liberty, without due process of law, and denies to them the equal protection of the law.

(1) **The police power is a law of necessity.**

In order to justify its exercise to the injury of the citizen's property or personal rights, *there should exist some danger to the public interests to challenge attention as one reasonably requiring, for the public interests, a remedy.*

State vs. Redmon, 134 Wis. 89.

Bonnett vs. Vallier, 136 Wis. 193.

Lawton vs. Steele, 152 U. S. 133, 137.

Dobbins vs. Los Angeles, 195 U. S. 223, 236-238.

Freund on Police Powers, Sec. 143.

This court in *Lawton vs. Steele*, *supra*, said:

"To justify the state in thus interposing its authority in behalf of the public, it must appear, first, that the interests of the public generally, as distinguished from those of a particular class, require such interference; and, second, that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals."

The Wisconsin court, in *Bonnett vs. Vallier*, *supra*, 202, said:

"There must be reasonable ground for the police interference, and also the means adopted must be reasonably necessary for the accomplishment of the purposes in view. So in all cases, when the interference affects property and goes beyond what is reasonable by way of interfering with private rights, it offends against the general equality clause of the constitution; it offends against the spirit of the whole instrument; it offends against the prohibition of taking property without due process of law, and against taking private property for public use without first rendering just compensation therefor."

(2) The determination of the legislature as to what is a proper exercise of its police powers is by no means final or conclusive, but is subject to the supervision of the courts.

This court, in *Dobbins vs. Los Angeles*, *supra*, 236, declared:

"It is now thoroughly well settled by decisions of this court that municipal by-laws and ordinances and even legislative enactments undertaking to regulate useful business enterprises are subject to investigation in the courts with a view of determining whether the law or

ordinance is a lawful exercise of the police power, or whether, under the guise of enforcing police regulations, there has been an unwarranted and arbitrary interference with the constitutional rights to carry on a lawful business, to make contracts, or to use and enjoy property."

(3) There is no doubt of the power of the state, in the absence of congressional regulation covering the same subject, to exclude from, or to regulate the reception into and the sale in the state of food products falsely or deceptively branded.

Plumley vs. Massachusetts, 155 U. S. 461.

Schollenberger vs. Pennsylvania, 171 U. S. 1.

Crossman vs. Lurman, 192 U. S. 189, 199-200.

Savage vs. Jones, 225 U. S. 501.

(a) But there must be deception or misleading of the public by such branding to justify the exercise of the police power in such cases.

Justification for the exercise of such power is found alone in the fact that the public is being deceived or misled to its harm as to the identity or true character of the article they are purchasing. In the instant case, if the name "corn syrup" for the chief ingredient of the defendants' article, or the name "Karo Corn Syrup with Cane Flavor," or "Karo Corn Syrup" for the article itself, is not false, deceptive or misleading, when taken in connection with the other statements on the label, then it is the right of the defendants, respectively, to use those names if they choose, whatever their reason for so doing may be, or whether they in fact have any good reason for so doing. To deny them that right or penalize them for exercising it is to deprive them of their liberty and of their property without due process of law.

People vs. Hawkins, 157 N. Y. 1, 8.

State ex rel. Zillmer vs. Kreutzberg, 114 Wis. 530.

Allgeyer vs. Louisiana, 165 U. S. 578.

State vs. Redmon, *supra*.

Bonnett vs. Vallier, *supra*.

Dobbins vs. Los Angeles, *supra*.

(b) The Wisconsin court in the Kreutzberg case, *supra*, in defining the constitutional meaning of "liberty" and "property," said, pages 533-534:

"It has become settled, for example, that 'liberty' does not mean merely immunity from imprisonment, and that 'property' is not confined to tangible objects that can be

passed from hand to hand; that within the former word is included the opportunity to do those things which are ordinarily done by every man and the right of each individual to regulate his own affairs, so far as consistent with the rights of others; and within the latter, those rights of possession, disposition, management and of contracting, with reference thereto, which render property useful, valuable and a source of happiness, right to possession of which is preserved."

This court in *Allgeyer vs. Louisiana*, *supra*, uses almost identical language in expressing the same thought:

(3) **We will consider the Grady case particularly under this proposition, although most that is said will apply, and is intended to apply, equally to the McDermott case and will practically dispose of it also.**

We contend that "corn syrup" is a proper and truthful name for the principal ingredient in the article sold by the defendant Grady and also the defendant McDermott, and that a proper and truthful name for the article itself in the Grady case is "Corn Syrup with Cane Flavor," because

(a) The name "corn syrup," as applied to such ingredient in a food syrup, and "corn syrup with cane flavor," as applied to the mixture, are, as matter of common knowledge, truthful, and for that reason not deceptive or misleading.

(b) Glucose, so-called, has been recognized by scientists and in the literature of the subject, for more than a hundred years, as a "syrup," and there is no deception, therefore, in calling it such.

(c) Glucose, when mixed with other syrups for table use, has for more than 30 years been known to the consuming public as "corn syrup," and by Chap. 152, laws of Wisconsin for 1905, was so recognized legislatively in Wisconsin, for two years before and down to the time the statute of 1907, here attacked, was passed. Hence there was no deception in Grady's and McDermott's calling the chief ingredient in their mixtures "corn syrup," or in Grady's calling his mixture, composed of corn syrup and a small percentage of refiner's syrup, "corn syrup with cane flavor."

(d) **The name glucose, as an ingredient in a food syrup, is itself deceptive and misleading.**

Glucose is generally supposed among consumers of table syrup to have a foul source and to be an unclean thing, as is shown by the proofs and found by the trial court—and not

disturbed by the supreme court of the state—and calling it by that name greatly prejudices the sale of the mixed article, while under the name “corn syrup with cane flavor” or the name “corn syrup” the article is in great demand and readily saleable as a popular, wholesome and palatable food. The statute, therefore, arbitrarily deprives the defendant Grady of the privilege of calling his product by a truthful and appropriate name of his choice and forces him to call it by a name prejudicial to its sale, and therefore deprives him of his liberty and property without due process of law.

(e) The administrative agencies of the federal government, after careful consideration of the whole subject, under the Food and Drugs Act, officially determined “corn syrup” for the chief ingredient and “corn syrup with cane flavor” for the mixture itself were truthful and lawful under the federal act.

(4) **The state statute not only arbitrarily deprives the defendant Grady of the privilege of calling his food product by a truthful and appropriate name of his own choice, but forces him to call it by a name misunderstood by the public and which prejudices the sale of the article. The statute, therefore, deprives him of his liberty and of his property without due process of law.**

(a) The circuit court of Dane County found as a fact, that “the public generally would not purchase the defendants’ product if it were put out under the name of “glucose,” and the supreme court of the state did not disturb this finding. The trial court used this language in finding the fact and in declaring its legal effect upon the defendants’ rights (Grady Trans., 27; McDermott Trans., 27):

“When the defendants established the fact that the public generally would not purchase the product if it were put out under the name ‘glucose’ (which is shown to be a proper designation), they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public.” (Italics ours.)

And this the trial court held would be true, even though the product be in fact a syrup and properly termed such. (Grady Trans., 27; McDermott Trans., 26.)

(b) The testimony shows without conflict not only that the fact is as the court finds, that the syrup consuming public misunderstand the term “glucose” and regard it as a filthy product, and will not buy a food product *designated* as con-

taining it as an ingredient, or at least not with the same freedom as if such ingredient were called "corn syrup," but that the mixture in question, both under the names of "corn syrup" and "corn syrup with cane flavor" has long been, and was at the date of the sales in question, not only very popular as a food product, and the sales of it very large, but in fact was so popular that it had, a number of years before the trial, practically driven from the market sugar-cane syrup, once the principal seller among syrups.

It appears without contradiction also that glucose unmixed has been used in this country almost exclusively in the manufacture of confectionery, jellies and like products, and almost never as a table syrup. It has from one-half to three-fourths the sweetness of cane sugar and the consistency and body of table syrup, but is without a distinctive flavor, and for that reason other table syrups are usually mixed with it to give it added sweetness and a distinctive flavor. When glucose is sold for manufacturing purposes it has been almost universally called, commercially, "glucose," but when mixed with other syrups for table use, *it has never been called "glucose,"* but always a "syrup"—that is, until the Michigan and Wisconsin statutes of 1903 and 1905, respectively, were passed, requiring it to be called either "corn syrup" or "glucose mixture," and until Chapter 557, the statute in question, compelled it to be called glucose.

Properly analyzed, then, the holding of the trial court, which received the sanction of the supreme court of the state, means this: Because the public mistakenly think glucose is an offensive something, *which it is not in fact*, and for that reason will not buy it under that name, the fact that glucose is a proper name for it—even though it is a syrup and is properly termed such and is a product of corn—the legislature has the right to require that it be sold under the name "glucose," even though under the name "corn syrup" or "corn syrup with cane flavor" the public know what it is and will gladly and freely buy it as a clean, wholesome and palatable food, but would not do so if it knew its chief ingredient were glucose. Such was the contention of counsel for the state in the state courts.

That this is the idea of the learned circuit judge in the finding of fact just stated—and must have been so understood by the state supreme court—would seem to be apparent from another clause in the decision (Grady Trans., 27; McDermott Trans., 27), in the same immediate connection, as follows:

"The question is not whether the term 'corn syrup' is coming in general use (the court should have said, has long been in general use), the question is whether this

name deceives the public *and leads it to buy that which it would not otherwise purchase.* Whether the product be wholesome or unwholesome, whether the consumer have valid reasons *or only unreasoning prejudices in regard to the matter,* the public have the right to know, and the state the right to compel the disclosure of, what is contained in all food products offered to the consumer." (*Italics ours.*)

But if "corn syrup" as well as "glucose" is a proper name for the chief ingredient in the mixture, and the public knows it under the former name and has so known it for many years, but does not know it under the latter name or know it so well, then "corn syrup" is contained in the article and the public is not being deceived by the use of such name. The mere fact that the public is led by the use of the name "corn syrup" to buy the article when it would not buy it if labeled to contain "glucose" does not give the state any right to require the use of the word "glucose" instead of "corn syrup," but quite the contrary.

State vs. Hanson, (Minn.) 136 N. W. Rep. 412, 414.

The learned trial court cited to sustain his position the Minnesota cases,

Stolz vs. Thompson, 44 Minn. 271 (46 N. W. 410).

State vs. Aslesen, 50 Minn. 5 (52 N. W. 220, 221).

which seem to us readily distinguishable from the instant case. The *Stolz* case was a prosecution for the violation of a statute prohibiting the use of alum in baking powder unless the label so disclosed. The label did not in that case disclose the fact. It was a case of adulteration. It is supposed, more or less generally, that the use of alum, as an ingredient in food, is harmful. There was nothing unreasonable, therefore, in requiring the label to inform the public that the article being sold is adulterated with alum. If sold as baking powder unmixed with alum, as the name would indicate, in the absence of any information on the label to the contrary, it is a deception, because it is baking powder *and alum mixed.* The purchaser is really getting a different article from that which he thinks is being sold to him. Not wanting alum in his baking powder, because he believes it is harmful, he has the right to be informed whether the baking powder he is buying is adulterated with alum.

But that is not the case in hand. There is no adulterant in corn syrup as the chief ingredient in defendants' mixture, and the label truthfully discloses all the ingredients and their pro-

portions in the mixture, which was not the case in the Minnesota case. The chief ingredient in the mixture is syrup made from corn, and the only syrup that can be made from corn. It is pure, unadulterated corn syrup and that alone. Under that name the consumer knows the article for what it actually is, and when he buys it for corn syrup he gets just what he thinks he is getting. But when it is called "glucose"—a name which does not convey a truthful idea of what it actually is, but leads him to believe it is something other than it actually is—it is quite a different matter.

But the trouble is, if the article is offered to him as a glucose mixture, he will not buy it, as the fact is found by the court, because of his ignorant prejudice against it, on the supposition that it is what he thinks it is, whereas it is in fact no such thing but something clean and wholesome.

The other Minnesota case is of the same character and distinguishable on the same grounds. These cases do not sanction the ruling of the trial court but are in harmony with the claim of the defendants here. There is a vast difference between misleading the public to its harm by falsity and deception, and inducing the public to act to its own advantage by removing from it the opportunity to act upon a misconception of fact.

(5) **Prescribing such an obnoxious branding is unreasonable and prejudicial to sale and therefore invalid.**

Statutes requiring goods to be labeled "convict made" or oleomargarine to be colored pink, have been held invalid, because the obvious and natural operation of such a statute is to depress the value or restrict the sale of the article, and therefore to deprive the owner of his property without due process of law.

Freund on Police Powers, Secs. 50, 51.

People vs. Hawkins, 157 N. Y. 18.

Collins vs. New Hampshire, 171 U. S. 30.

Crossman vs. Lurman, 171 N. Y. 329.

Crossman vs. Lurman, 192 U. S. 189, 195, 199, 200.

State vs. Hanson, (Minn.) 136 N. W. 412, 414.

What would be the natural effect of such a statute as the one in question if not to prejudice the sale of the defendants' article as the proofs show and the court finds? It must be sold as "glucose flavored with sugar-cane syrup," or "glucose flavored with refiner's syrup." But what is glucose? And what does it come from? How many people know what it is or what its origin? Its name to the uninformed and illiterate,

very naturally suggests an origin akin to that of glue. The supreme court of Michigan in *People vs. Harris*, 135 Mich. 136, declared such to be the belief of very many people, as the facts in this case show. Ignorance is always suspicious and will frequently decline to act because of mere suspicion, however ungrounded.

This court said of the oleomargarine statute under consideration in *Collins vs. New Hampshire*, supra, 33:

"If enforced, the result could be foretold. To color the substance as provided for in the statute naturally excites a prejudice and strengthens a repugnance up to the point of an absolute refusal to purchase the article at any price. The direct and necessary result of the statute must be taken into consideration when deciding as to its validity, even if that result is not in so many words either enacted or distinctly provided for. *In whatever language a statute may be framed, its purpose must be determined by its natural and reasonable effect.*" (Italics ours.)

People vs. Hawkins, supra, 17.

Forster vs. Scott, 136 N. Y. 577, 584.

Davis vs. Cleveland C., C. & St. L. R. Co., 146 Fed. 403, 412.

The New York Court of Appeals, in *People vs. Hawkins*, found no difficulty in reaching the same conclusion as to the natural effect of a statute requiring prison made goods to be branded as such, and to hold it unconstitutional for that reason alone.

(6) But requiring the article to be sold as "glucose flavored with refiner's syrup" is a fraud on the public as well as the manufacturer and dealer.

(a) To require the chief ingredient in the defendants' article to be branded "glucose," or a name for the mixture that designates such an ingredient, when the purchasing public generally does not recognize it under that name, for the thing it actually is, does not prevent fraud or deception but perpetrates a fraud and encourages deception—the very thing the statute is claimed to guard against; or at least it *perpetuates a misconception* on the part of the public, as to the true character of the article it is buying, which is nothing less than a fraud upon it. To enact a statute which has the effect to perpetuate a public misconception of the true nature of a clean, wholesome and nutritious article of food and to thus destroy or even hamper its sale, would not only be a silly

policy, but one destructive of private rights as well. To thus destroy or to seriously hamper a valuable and profitable use of corn, as a source of food supply, would not only be a senseless blow at the agricultural interests of the country, but an unwarranted use of the police power.

The name "glucose" is indefinite and uncertain, while "corn syrup" is not.

(b) But glucose is both a sugar and a syrup and may have an almost infinite variety of sources (Grady Trans., 93-94, 217-218; McDermott Trans., 95-96, 215-216). It may be manufactured even from linen rags or from sawdust or other wood fiber (Grady Trans., 218; McDermott Trans., 216-217), and whether it be in solid or liquid form, as the chief ingredient in the defendants' mixture, or what may be its source of manufacture, are left entirely uncertain by the label prescribed by the state statute. The statute gives no recognition whatever to these facts. There is no uncertainty, however, in the label used by the defendants, which plainly states each ingredient in the mixture and their proportions (Grady Trans., Exhibit 155, Record p. 722; McDermott Trans., Exhibit 143, Record p. 720), and the name "corn syrup with cane flavor" and the name "corn syrup" read with the remaining parts of the label leave no doubt as to just what the ingredients are, their character or source. Corn syrup can have but one source under this label, "corn," and the label makes it plain that the chief ingredient is a liquid and not a solid—that is, that it is a syrup and not a sugar; that it is made from corn and not from linen rags, from sawdust or other wood fiber.

(7) Grounds of decision of the state supreme court.

As we understand the decision of the state supreme court, the claim that the public is deceived by defendant Grady's label is based upon two propositions, neither of which can be sustained.

(a) That the name "corn syrup" as applied to the chief ingredient of defendant Grady's mixture is deceptive because, as is alleged—but without proof we assert to sustain the claim—the public generally understand the term "syrup" to be applied only to "articles of food which are in common use as table syrups," *such as maple, sugar-cane and refiner's syrup*, all of which are said to be products of sugar-producing plants, while the name "corn syrup" naturally suggests that the product is a syrup produced from the sap of corn (that is, from the corn-stalk) and does not suggest that it is produced by the action of acid on the starch of corn (in the kernel), and

this notwithstanding the word "corn" would indicate the kernel and not the stalk; and

(b) That the name "corn syrup" does not designate a mixture "having a fixed proportion of glucose or syrup constituents"; *"nor can it be said that the great mass of persons understand that 'corn syrup' is a mixture of glucose and syrup."*

A MISTAKE OF FACT BY LOWER COURT APPARENTLY CONTROLLED ITS DECISION IN THE GRADY CASE.

(a) As to the second of these grounds of decision, the state court failed utterly to distinguish between the label in the Grady case and the label in the McDermott case, which were tried in the circuit court and heard in the supreme court together. In the Grady case the label gives the name of the mixture as "Karo Corn Syrup with Cane Flavor," and of the ingredients "Corn Syrup 85%, Refiner's Syrup 15%"; in the McDermott case the label gives the name of the mixture as "Karo Corn Syrup" and of the ingredients "Corn Syrup 90%, Cane Syrup 10%." The opinion of the lower court treats the name of the mixture in both cases as "corn syrup." The name of the mixture in the Grady case itself indicates a compound, in addition to that fact appearing from the names and proportions of ingredients stated on the label. The name itself in the McDermott case does not suggest a compound, although the names and proportions of the ingredients stated on the label clearly indicate a compound. This confusion of facts evidently had a controlling effect upon the decision in the Grady case, because the court said in its opinion (Grady Trans., 472; McDermott Trans., 487):

"It does not appear that 'corn syrup' designates a mixture having a fixed proportion of glucose or syrupy constituents. It seems that such constituents are of variant proportions in the article sold as 'corn syrup.' Nor can it be said that the great mass of persons understand that 'corn syrup' is a mixture of glucose and syrup." (Italics ours.)

Hence the deception inferred by the court.

No such statement as this would have been made with respect to the Grady case had the court noted the fact that the name of the mixture in that case was not merely "corn syrup" but "corn syrup with cane flavor"—which latter name itself clearly indicates that it is a combination of corn syrup and re-

finer's syrup—a fact also directly communicated, as already stated, by the designation of the ingredients and proportions on the label. The state court does not intimate that a cane flavor is not given to the mixture by the use of 15 per cent of refiner's syrup, or that there is any deception in the label in that respect—the proofs abundantly showing that refiner's syrup gives a cane flavor to the mixture (Grady Trans., 269, 222, 223)—but merely that it can not be said that the “great mass of persons understand that ‘corn syrup’ is a mixture of glucose and syrup,” which use of the term “corn syrup” as the court says, naturally results in a deception. The resultant deception, if any, from the use of such a name would not, therefore, exist in the Grady case. It must be apparent that the court would not have found deception as to the name of the mixture in that case had it not been mistaken as to the name used on the label.

(b) The court along the same line, makes much of the fact that the name “corn syrup” does not designate a mixture having a fixed proportion of glucose or syrupy constituents. But in the Grady case no such name is given to the mixture.

As already stated, to avoid all deception or misleading the exact proportion of each ingredient in the mixture is given on the label, aside from the name of the mixture which indicates a compound, so that the purchaser may know when he buys, the exact constituents and their relative proportions.

The label bears (Grady Trans., Exhibit 155, page of Record 722) the statement plainly displayed on its face, “Karo Corn Syrup with Cane flavor, is pure and wholesome, and is prepared from 85 per cent of corn syrup and 15 per cent of refiner's syrup.”

(c) But the word “syrup” does not indicate any particular degree of sweetness.

The fact that one mixture is made sweeter than another in these two cases in order to meet a wider demand for its use, or give a more pronounced cane flavor for the same reason, by incorporating more refiner's syrup or sugar-cane syrup in one than in the other, does not prevent the truthful application of the name “syrup” to both mixtures, so long as each possesses the usually recognized characteristics of table syrup—viscosity and the sweetness of sugar. The word syrup from common knowledge does not indicate either a fixed degree of sweetness or a particular kind or degree of flavor, because these vary in all table syrups.

The whole argument of the court as to deception in the name of the mixture in the Grady case—apart from that imparted to it by the name of its chief ingredient—must therefore fail, and the case of the state made to rest solely upon the claim that there is deception in the use of the name “syrup” as applied to the chief ingredient of the mixture. If the case fail in this respect the statute can have no valid foundation.

FIRST. The question is, then, can the name “syrup” be truthfully applied to the chief ingredient of the defendant Grady’s mixture, or is there deception or fraud in the use of such name?

(1) If the first branch of this question must be answered in the affirmative, the latter must necessarily be answered in the negative. Of course if the name “corn syrup” may properly be applied to the chief ingredient of the mixture, it may rightly constitute a part of the name of the mixture itself.

(2) It will be noted that the state statute not only prescribes a name for the mixture and its chief ingredient, which excludes the use of the name “syrup,” but the final clause of the statute prohibits the use of any designation on the label or branding “that represents or is the name of an article *which contains a saccharine substance.*” This is leveled directly against the use of the name “syrup” to designate either an ingredient of the mixture or the mixture itself.

SECOND. We will first consider the evidence—which will necessarily include all facts of which the court must take judicial cognizance—showing that “corn syrup” is a truthful name for the principal ingredient in the article sold by the defendants.

We do this in full recognition of the rule that this court will not review a question of fact determined by the state court, upon conflicting proofs. We insist, rightly considered, the proofs are not in conflict; and that the question is, therefore, resolved into one of law.

Cresswill vs. Knights of Pythias, 225 U. S. 246, 261.

DECISION OF FEDERAL AUTHORITIES VERY PERSUASIVE FROM THE STANDPOINT OF TRUTHFULNESS OF LABEL.

(1) The decision of the federal authorities that “corn syrup” as the name of the chief ingredient and that “corn syrup with cane flavor” as the name of defendant Grady’s mixture are

true is very persuasive of the fact, even if not authoritative, as against the state statute.

At the very outset of this inquiry it appears that the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor, on February 13, 1908, before defendants' sales of the article here charged were made, decided after careful consideration of the whole subject, in all its relations to the labeling of food products under the Food and Drugs Act of Congress, that defendant Grady's branding is truthful and not a misbranding. This decision reads (Grady Trans., 85; McDermott Trans., 83) :

"Washington, D. C., February 13, 1908.

"We have each given careful consideration to the labeling under the Pure Food Law of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup as corn syrup. And if to the corn syrup there is added a small percentage of refiner's syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'corn syrup with cane flavor.'

GEORGE B. CORTELYOU,

Secretary of the Treasury,

JAMES WILSON,

Secretary of Agriculture,

OSCAR H. STRAUSS,

Secretary of Commerce and Labor."

This decision was promulgated by the Secretary of Agriculture as Food Inspection Decision No. 87, and still stands as an authoritative adjudication of the chief administrative officials of the government under the federal statute.

(a) It may well be presumed, that the whole field of inquiry, and from every point of view, was carefully explored and considered by the three secretaries in arriving at this decision. The entire history of the ingredients in the mixture, scientifically and commercially considered, must have been examined and the popular understanding of their nature and truthful nomenclature have been thoroughly investigated and determined before the decision was reached. This is certainly a fact which may be used by this court in informing its judicial knowledge.

(b) It will be noted in the first place that the three secretaries have no hesitation in declaring that the chief ingredient in defendants' mixture is a syrup, and is properly called and

labeled "corn syrup"—a decision directly at variance, as to the fact of truthfulness and deception, with the decision of the state court.

(c) There is no doubt that in reaching this conclusion the view taken by the Attorney General and approved by the President and published by the Secretary of Agriculture in Food Inspection Decision No. 65, on April 12, 1907, as controlling in administering the Food and Drugs Act of Congress, was given due weight, although here scientific as well as popular understanding are in accord as to the proper nomenclature.

It was rightly said by the Attorney General in the opinion just referred to (Grady Trans., 416; McDermott Trans., 414-415):

"The prime purpose of the Pure Food Law is to protect against fraud consumers of foods and drugs. * * * According to the recognized canons of statutory construction, the language of its provisions must be interpreted with reference to and in harmony with this primary general purpose, so that, *in determining the proper nomenclature for articles of food as defined in the act, the intention of the law will be best preserved by giving to such articles names readily understood and conveying definite and familiar ideas to the general public, although such names may be incorrect in the view of the chemist or physicist or the expert in some particular industrial art.* * * *" (Italics ours.)

The decision of the three secretaries is, therefore, a most valuable and persuasive precedent. It came about after the adoption and promulgation of Circular No. 19 of the Agricultural Department amending the food standards previously promulgated in circulars No. 10, 13 and 17, and must be treated, therefore, as setting forth the final and binding food standards as to the truthfulness and lawful branding, in interstate commerce, of the defendant Grady's mixture.

(2) It seems that according to the practice and ruling of the Bureau of Chemistry of the Department of Agriculture, the labeling and branding of commercial glucose as "made from corn syrup" is permissible under the Food and Drugs Act, notwithstanding the omission from the standards of Circular No. 19 of all reference to the name "corn syrup" as a synonym of glucose. This is also a most important fact both from a scientific and popular point of view, in informing the judicial knowledge of the court as to the truthfulness of the name "corn syrup" as applied to the article otherwise known as glucose.

United States vs. Seven Hundred Seventy-nine Cases of Molasses (C. C. A.), 174 Fed. 325, 328.

STANDARDS PROMULGATED BY DEPARTMENT OF AGRICULTURE AT VARIOUS TIMES.

Circulars No. 10, 13 and 17, issued by the Department of Agriculture on November 30, 1903, December 20, 1904, and March 8, 1906, respectively, in establishing standards of purity for foods under the authority of the Act of Congress approved March 3, 1903, authorizing the Department of Agriculture to establish standards of purity for food products and to determine what are regarded adulterations therein (Grady Trans., 74-75; McDermott Trans., 72-73), declare:

"Standard Glucose Syrup, or Corn Syrup, is glucose syrup or corn syrup containing not more than 25% of water nor more than 3% of ash."

"Glucose syrup or Corn Syrup is glucose unmixed or *mixed* with syrup, molasses or refiner's syrup, and contains not more than 25% of water and not more than 3% of ash."

These standards not only recognize glucose unmixed as a syrup and as synonymous with corn syrup, but also recognize corn syrup as a proper name for glucose "mixed with syrup or molasses."

In the Grady case we are not insisting upon the name "corn syrup" alone as a truthful name of the mixed article, but only as a truthful name of the chief ingredient of the mixture. This standard, or rather nomenclature—because we insist that giving a name to an article of food is by no means establishing a *standard of purity* for the article—for glucose mixed with syrup or molasses was thus recognized or established by the Secretary of Agriculture shortly after the Michigan act of 1903 was passed, requiring that the same mixture be labeled "corn syrup" or "glucose mixture"; and the Wisconsin act of 1905, requiring the same nomenclature as the Michigan act, was passed while these federal standards were the well recognized standards throughout the United States and after the supreme court of Michigan, in *People vs. Harris*, 135 Mich. 136, construing the Michigan statute had declared "that in this country corn syrup and glucose * * * are commercially synonymous terms."

There can be no doubt that the Wisconsin name for this mixture was adopted in the Act of 1905 from the Michigan statute and from the federal standards contained in Circulars No. 10 and No. 13, as well as from the time-honored and popular understanding of the true character and name of the article.

Circular No. 17, promulgated March 8, 1906, after the Wisconsin Act of 1905 was passed, contained identically the same standards as Circulars No. 10 and No. 13 above referred to for glucose, and used the same nomenclature.

Circular No. 19 of the Department of Agriculture, issued June 26, 1906, merely omits to designate glucose unmixed as a syrup, or to give "corn syrup" as a synonym for glucose mixed or unmixed with syrup or molasses. There is no intimation, however, in the report of the committee to the Secretary of Agriculture submitting the standards found in Circular No. 19, nor in the circular itself, that the name "corn syrup" as applied to the chief ingredient of the defendants' mixture is false, deceptive or misleading in any particular, nor that that name is not scientifically, commercially and popularly recognized as true and appropriate.

The omission of the name from the standards of Circular No. 19 is of little consequence in determining anything, in view of the subsequent decision of the three secretaries expressly affirming that glucose is a syrup and that "corn syrup" is a truthful name for it, and when mixed with a small percentage of refiner's syrup the mixture is not misbranded if labeled "corn syrup with cane flavor."

(4) The literature of the subject shows that glucose unmixed or in mixture with other syrups for table use has always been recognized as a syrup, notwithstanding the assumption of the lower court that it is not a syrup, and the command of the state statute that it shall not be designated on labels as such.

(a) **Judicial Knowledge.**

The court may well resort, if it has any doubt on the subject, to the opinions of scientists as well as to dictionaries, encyclopedias and other authoritative sources to inform its judicial knowledge on the subject.

Brown vs. Piper, 91 U. S. 37, 42, 43.

Hoyt vs. Russell, 117 U. S. 401, 405.

Schollenberger vs. Pennsylvania, 171 U. S. 1, 9, 10.

Jones vs. United States, 137 U. S. 202, 216-217.

Underhill vs. Hernandez, 168 U. S. 252, 253.

People vs. Mayes, 113 Cal. 618 (45 Pac. 860).

People vs. Marx, 99 N. Y. 377, 381-382.

Goodrich vs. State, 133 Wis. 242, 245-246.

Carter Machine Co. vs. Hanes, 70 Fed. 859, 864.

7 *Enc. of Evidence*, 1031.

(b) Dr. Fischer, the only expert sworn for the state, gave from some of the leading dictionaries the definition of glucose (Grady Trans., 95-96; McDermott Trans., 93-94).

The *Century Dictionary* defines glucose "(1) The name of a group of sugars having the formula $C_6H_{12}O_6$. (2) In commerce the sugar *syrup* obtained by the conversion of starch into sugar by sulphuric acid."

It will be noted that glucose has a double meaning and represents both a sugar and a *syrup*. Its use is not, therefore, definite but ambiguous as applied to a food product, as it does not always indicate a liquid form.

The *Standard Dictionary* also defines glucose as a sugar but states: "It is made commercially with diluted sulphuric acid, and the resulting solid is called grape sugar and the *syrup* glucose."

Webster's International Dictionary of 1906, after referring to glucose as a class of sugars, gives the definition. "The trade name of the *syrup* obtained as an uncrystallizable residue in the manufacture of glucose proper, and containing in addition to some dextrose, maltose, dextrin, etc."

The earlier editions of this dictionary have the same definition. This same dictionary, under the word "dextrose," says, "The solid products are known to the trade as grape-sugar, and the syrupy products as glucose or mixing syrup."

Dr. Fischer could not agree with these definitions of glucose, because, as he states, "from the standpoint of a food chemist, a true syrup is made by the direct evaporation of the sap of sugar-producing plants by the mere drawing off of water" (Grady Trans., 47; McDermott Trans., 45). He does not undertake to explain why a food chemist should be permitted to restrict the names or definitions of ordinary food products as they are to be found in dictionaries and encyclopedias and the accepted literature of the world on the subject from time immemorial. But he does not hesitate to do so, although his presumption is not without opposition from very high authority.

When confronted with Leach on Food Inspection and Analyses, 1905, page 400—which he says is recognized as a very high authority (Grady Trans., 189-190; McDermott Trans., 187-188)—he is compelled to admit that glucose is there defined as follows: "Commercial glucose, otherwise known as mixing glucose, crystal glucose and starch or *corn syrup*, is a very heavy, mildly sweet, colorless and semi-fluid substance."

As to Leffman & Beam's *Select Methods on Food Analyses*, 1905, which Dr. Fischer also says up to the printing of Leach's *Analyses* was regarded as the standard authority on food analysis in this country, he admits (Grady Trans., 194; McDermott Trans., 192-193) that at page 125 it says "*In trade the term glucose is restricted to the syrup; the solid is called grape sugar.*" The doctor admits that this authority, like Leach, "in the body of the work states somewhere that glucose is often termed 'corn syrup.'"

He also admits (Grady Trans., 194-195; McDermott, 193) his familiarity with Blythe on *Foods, their Composition and Analyses*, 1905, "a recognized authority in England," in which glucose is referred to on page 127 as "*glucose syrup.*"

He also admits his familiarity with Allen's *Commercial Organic Analyses* (1905), "the most extensive work," he says, "on the subject of commercial organic analysis in the English language," published both in England and in America," in which the statement is made (Grady Trans., 195; McDermott Trans., 193-194):

"In America the term glucose is restricted to the syrupy preparation, the solid production being distinguished as grape sugar. The following grades are recognized: Liquid varieties: Glucose, mixing glucose, mixing *syrup*, *corn syrup*, jelly glucose and confectioner's glucose."

The special report of the Census Bureau of Manufactures of the United States for 1905, part 1, page 148, refers to "glucose" as a "thick syrup" called glucose, made from corn starch.

The Year Book of the Department of Agriculture for 1905, page 241, contains an article (Grady Trans., 199; McDermott Trans., 198) by Dr. Wiley on "Table Syrups." Dr. Wiley, until recently, was chief of the bureau of chemistry of the United States Department of Agriculture, and recognized the country over as one of the ablest and most persistent advocates of pure food laws, was a member of the committee which prepared the federal standards already referred to for the Department of Agriculture, and yet in this published document he makes this statement:

"The chief ingredient of this mixed *syrup* is glucose; *itself a syrup of fine body.*"

The United States Dispensatory of 1907 contains, at page 1071, the following (Grady Trans., 200; McDermott Trans., 199):

"According to the manufacture of glucose, when glucose *syrup* alone is desired, the process of conversion is stopped

when the starch has disappeared, so that the *syrup* contains both glucose and dextrin."

In the New International Encyclopedia (1903), page 450, under the head of "Commercial Glucose," appears the following (Grady Trans., 413; McDermott Trans., 411-412):

"The term glucose is applied to mixtures of the substances described above with other carbohydrates, the various products being otherwise called starch, *syrup*, corn syrup, starch syrup, starch sugar, corn sugar, etc."

In the Universal Encyclopedia (1900), page 175, appears the following (Grady Trans., 413; McDermott Trans., 411-412):

"Starch sugar appears in commerce in a great variety of grades under the following names: Liquid varieties: Glucose, mixing glucose, mixing *syrup*, corn *syrup*, etc."

In Frankel on "Starch, Glucose, Starch Sugar and Dextrin," 1881, page 196, glucose is recognized as a syrup, where it is said: "From this *syrup* (glucose) no solid sugar will separate, since its ability to crystallize is checked by the presence of the dextrin" (Grady Trans., 259-260; McDermott Trans., 258).

We call attention of the court to the fact that the proofs are uncontradicted to the effect that the dextrin present in liquid glucose is not only a very wholesome and nutritious product of the corn, but its presence is essential in order that glucose remain in liquid form, otherwise it will crystallize (Grady Trans., 79, 219-220; McDermott Trans., 77, 217-218). By carrying the process of manufacture a step further the dextrin is converted into dextrose and the whole becomes sugar.

In the Imperial German Board of Food Chemists (1897), Volume 2, page 95, in referring to glucose produced from potato starch, it was referred to (Grady Trans., 417; McDermott Trans., 415) as "starch *syrup*."

(c) Ever since glucose was discovered in 1811 it has been universally recognized in the literature of the subject and commercially as a syrup, hence there is no deception in calling it a syrup.

The proofs show without conflict that glucose for commercial uses is manufactured in this country exclusively from corn, and in Europe almost exclusively from potatoes.

Professor Chandler, to whose testimony reference has already been made, not only testified that glucose is in every proper sense of the word a "syrup," and that such is the consensus of opinion among the most distinguished chemists of the

country, but he gave a list of 45 books (German, English and French, the languages of which he reads fluently) hurriedly gathered from his private library, which refer to "glucose" as a "syrup" (Grady Trans., 214; McDermott Trans., 213). The list runs back to 1813 and down to 1907. Professor Chandler declared in that connection "I presume I could have found *twenty times as many references* if I had thought it desirable."

The references from German and French works—in which countries glucose is made almost entirely from potatoes—show the use of the name "starch syrup" and "potato syrup," chiefly the former; *but that the product is a "syrup" is universally recognized*. The same is true of the English works, as will appear by reference to the list given by Professor Chandler. No reference is made in this list to the report made in 1883 to the Commissioner of Internal Revenue by Professors Remsen of Johns Hopkins University, Chandler of Columbia, Barker of the University of Pennsylvania, Brown of Yale, and Gibbs of Harvard, in which it is said (Grady Trans., 212; McDermott Trans., 210-211):

"Starch sugar appears in commerce in a great variety of names as follows: (a) The liquid varieties: Glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioner's glucose, etc."

Doctor Fischer, the state's expert, admitted that in England, Germany and France the common name by which this product is known is "starch syrup," sometimes "potato syrup," but he said it is always denominated a syrup (Grady Trans., 199-200; McDermott Trans., 198). Corn is not used in those countries in the manufacture of glucose (Grady Trans., 211; McDermott Trans., 209-210).

He was also asked and answered (Grady Trans., 83-84; McDermott Trans., 82):

"Q.—Now isn't it a fact that in most of the encyclopedias and in most of the dictionaries this article is termed a syrup?

A.—In most of them I believe it is termed starch *syrup*.

Q.—Well, starch syrup would be a more proper designation of it, wouldn't it, than glucose, because it is the direct product of starch?

A.—If glucose hadn't been so universally used as a name for the product in this country I should say yes.

This, of course, refers to the unmixed glucose, which is used,

as the testimony shows, in the manufacture of confectionery, jellies, etc. But the fact remains that Dr. Fischer admits that the unmixed article is denominated in the literature of the subject as a "syrup" and more properly so than glucose, were not the article so familiarly known as glucose.

(d) But if we resort to expert evidence the result is the same.

Professor Chandler of Columbia University, who is a chemist of wide reputation and long experience in food analyses (Grady Trans., 206-209; McDermott Trans., 205-207), testified for defendant that in his opinion "corn syrup" is "the most proper, most truthful name" that can be applied to the chief ingredient of the defendants' mixture, *because it is a syrup, and because it is made from corn and there is no other syrup that can be made from corn.* Giving his reasons further for calling it a syrup he said (Grady Trans., 217; McDermott Trans., 215): "It is a proper name. It is a solution of sugar. It is a thick solution of sugar, and that is what syrup is. It has been customary, from my memory, to call a thick solution of sugar, whether it contains sugar alone or whether other substances are associated with it, syrup. *It is a common name for thick solutions containing sugar for table use.*"

Professor Chandler showed his perfect familiarity, both from study and from personal observation, with all the processes used in the manufacture of sugar as well as glucose.

He further testified (Grady Trans., 212; McDermott Trans., 211) that there is a consensus of opinion among the most distinguished chemists in the country that "corn syrup" is a proper name for this substance (glucose). He said, "I have in my possession letters from them to that effect." He gave the names of thirty of these chemists and some of their letters are present in the record (Grady Trans., 212-213, 459-462; McDermott Trans., 211-212, 457-460).

The letter of Marsten T. Bogart, professor of organic chemistry of Columbia College, contains the following statement:

"The designation 'corn syrup,' therefore, for the thick, sweet liquid obtained by the action of acids upon corn starch is in no sense a misnomer. *It conveys a perfectly truthful meaning—that of a thick, sweet liquid produced in some way from corn, and it would be so understood by the general public. The word 'syrup' is a general term used to indicate certain prominent physical properties, and to attempt to define it on a basis of chemical composition appears to me as inadvisable as it is likely to prove difficult.*" (Italics ours.)

Another letter is from Walter S. Haines, a scientist of recognized ability, professor of chemistry in Rush Medical College of Chicago. He declares:

"Both by common usage and by dictionary authority the word 'syrup' is properly applied to a thick solution of glucose, and since the latter is invariably made from corn in this country, the term 'corn syrup' with us is literally descriptive and entirely appropriate."

Professor Millet of the University of Virginia declared:

"To refuse to sanction such use of the term (corn syrup) would imply a claim to arbitrarily make a change in the English language as currently spoken and written in this this country." (Italics ours.)

Other opinions from eminent scientists of like import are set out in the record (Grady Trans., 460-462; McDermott Trans., 458-460).

Hence we say this article is in fact a syrup and there can be no deception in calling it such.

(5) But it does not require evidence, nor should it be permitted, to define the word "syrup" in its popular sense.

Its meaning is a matter of common knowledge, not of expert testimony. The courts must take judicial cognizance of its meaning. The name "syrup" as ordinarily understood, when applied to a food product, has no reference to the origin or the method of the manufacture of the article, *but to its qualities alone of viscosity and its sugar taste*, and, to a limited extent, its flavor.

In *Maillard vs. Lawrence*, 16 How. 251, 261, the question having arisen, what was meant in the Tariff Act of 1846 by the words "wearing apparel" and "shawls," the court used language pertinent here:

"In instances in which words or phrases are novel or obscure, as in terms of art, where they are peculiar or exclusive in their significance, it may be proper to explain or elucidate them by reference to the art or science to which they are appropriate; but if language which is familiar to all classes and grades and occupations—language the meaning of which is impressed upon all the daily habits and necessities of all—may be wrested from its established and popular import in reference to the common concerns of life, there can be little stability or safety in the regulations of society." (Italics ours.)

The word "syrup" by general recognition is a generic term and describes a class of substances by reference to certain qualities they possess and not with reference to their particular origin or process of manufacture. There are different kinds of syrups, the names of which sometimes, and perhaps usually, indicate their sources, but never their method of manufacture. Sugar-cane syrup, or maple syrup, or sorghum syrup, or corn syrup, may be recognized by their names as having a particular origin; but when speaking of syrup, as a food product, divested of any special flavor or name which may be suggestive of its origin to one with knowledge on the subject, it is by common understanding known to be such only by its quality of viscid consistency and the taste of sugar. The consumer in buying syrup, unless he desires some particular kind like maple or sorghum, because of its peculiar flavor or cheap price, gives heed only to its sweetness and consistency. It may be safely said that he has neither thought nor knowledge of how the article is manufactured, whether by evaporating the sap of a plant or by some other process or source of manufacture. He usually seeks a syrup of pleasing flavor and of a degree of sweetness to suit his taste, and that is all he cares for.

Doctor Fischer, the state's expert, was asked (Grady Trans., 197; McDermott Trans., 195-196) as to the name by which "refiner's syrup" would be recognized by the public generally, and he said, "It is sold under the name of 'treacle' about as much as any other." Treacle is a synonym for refiner's syrup, according to the standards in Circular No. 19. He was asked whether a person coming to a store to get that syrup would ask for treacle and he said, "No, he wouldn't call for refiner's syrup, either; he would call for a *syrup and get whatever was dished out to him.*"

That is about the way with most consumers of syrup. Unless they want some particular syrup, like maple or sorghum or corn syrup, they merely call for syrup, and if it suits their taste they take it, and if not they let it alone. To say that consumers give thought to the fact, or usually even know, that syrups generally, much less exclusively, have their origin in the sap of a sugar-producing plant, or are manufactured from that source by the particular process of evaporation, is mere assumption and utterly at variance with common knowledge.

(6) No one has any authority to rob the word "syrup" of its generic signification as applied to a food product, or to say that corn shall not serve as a source of its supply, but that is just what the Wisconsin statute does.

In these days of invention and startling discovery, when many and rapid changes are being made not only in the methods

but the sources of food supply, who shall be heard to set bounds either to the sources of such supply or the use of the familiar language of the race to designate new products, so long as falsehood or deception is not practiced thereby upon the consumer? Who has authority to say that corn shall not serve as a source of supply for a syrup, if a wholesome and nutritious syrup can be made from corn? Especially when it is common knowledge that millions of bushels of corn are annually used for that purpose?

Who has authority to say that if a wholesome article of food may be manufactured from corn, possessing the consistency of a syrup and the sweetness of sugar—as those products are ordinarily known to the consumer of syrups—it shall not be called a syrup, even though when used alone it may not be of the same degree of sweetness that is possessed by the syrups ordinarily used by consumers as table syrups? *All syrups are not of the same degree of sweetness, nor does the word suggest any particular degree of sweetness.* Why should a new word be coined to designate old qualities in a food—when present in such a useful and popular food product as is here involved—when an old and familiar name fully and truthfully serves the same purpose? Such a claim has neither law nor good sense to sustain it.

Judge Taft, speaking for the Circuit Court of Appeals of the Sixth Circuit—Judges Lurton and Hammond concurring—said in

California Fig Syrup Co. vs. Frederick Stearns Co.,
73 Fed. 812,

“Fig syrup is a descriptive term. It may be that no one had ever made a syrup of figs at the time Queen selected the term to designate the preparation which he put upon the market. That is immaterial. *It is entirely possible to describe something by the use of common words which may never have had a commercial use or which may never have been in fact made.*” (Italics ours.)

Who possesses the authority, then, to say that a product of corn, having all the qualities of a syrup, as that article is commonly known, shall not be called a syrup, or “corn syrup” if you will, just as a syrup made from figs may be called fig syrup. And if to this syrup from corn is added cane syrup or refiner’s syrup as a flavoring, who shall say it may not be called “corn syrup with cane flavor.”

(7) **There is no sound basis for the holding of the lower court that glucose is not a syrup.**

The holding of the lower court—aside from the court's judicial knowledge—is based wholly upon the testimony of Doctor Fischer—the state's so-called expert—and the standards of purity established by the Secretary of Agriculture in circular No. 19, under date of June 26, 1906, unless by any possibility some force may be given to the approval of such standards by the State and National Association of Food and Dairy Departments, which by a single vote approved the 400 or more standards of that circular. This circular No. 19 declares as to syrup (Grady Trans., 443; McDermott Trans., 441):

“Syrup is the sound product made by purifying and evaporating the juice of a sugar-producing plant, *without removing any of the sugar.*”

As Dr. Fischer's views as a professed expert seem to be expressed in these standards—*he having been a member of the committee of food experts which prepared them*—it may be well first to examine into the standards to see what measure of importance scientifically—because they can have no other force—shall be accorded to them, and the Doctor's testimony on the same subject.

(a) The decision of the three secretaries, already referred to, under date of February 13, 1908—in which Secretary Wilson, who approved and promulgated the standards of circular No. 19, participated—directly repudiates the standards fixed in that circular, not only for syrup but for glucose and corn syrup, because the decision not only holds that the chief ingredient in the defendant's mixture is a syrup, but that “corn syrup” is a truthful name for it.

(b) **The syrup standards of circular No. 19 are utterly inconsistent and self-destructive, because they recognize as syrups products not in accord with the definition of syrup as declared therein and as here insisted upon by the state.**

(1) The proofs show without contradiction that “refiner's syrup,” which is recognized by the standards as a truthful name of a well recognized syrup, is a residual product obtained in the process of refining raw sugar, *after all the sugar possible has been removed from it by crystallization* (Grady Trans., 220-221, 225; McDermott Trans., 218-219, 223-224); and yet the standard definition of “syrup,” found in circular No. 19, *does not permit of the removal of any of the sugar.*

What are definitions worth—especially as a justification for destroying well-established trade names—if they are to be immediately departed from by the very authority establishing them?

The state statute here in question expressly recognizes "refiner's syrup" as a syrup, just as the federal standards do, even for food purposes, as also did Chapter 152 of the laws of Wisconsin for 1905, already quoted. Where is the consistency, then, in the policy or nomenclature here sought to be established by the state *for the protection of the consumer against deception* in refusing to call the chief ingredient of the defendants' mixture a syrup? Can the state be heard to say that that is deceptive which itself recognizes as the truth, in the very statute which is claimed to declare that it is deceptive?

(2) But the standards contained in circular No. 19 permit the making of a syrup from maple, sorghum or other sugar, or from sugar concrete, by the addition of from 30 to 35 per cent of water, but refuse the name of "syrup" to glucose, although concededly produced by merely stopping the manufacture of sugar from the starch of corn at a point where the dextrin, developed in such process, *acting as a solvent in every essential sense*, keeps the product from crystallizing—that is, keeps it in the form of a syrup.

(3) Professor Chandler, the expert of the defendant, testified as to the standards for syrup contained in circular No. 19 as follows (Grady Trans., 224-225; McDermott Trans., 223):

"It is a new departure in the English language. That was never known as a definition of a syrup until it was put forth by Dr. Wiley at Washington and put into this bulletin of standards, and it does not correspond to the English language or to custom or commercial usage for a hundred years in the English language or the French or German language. I read the French and German languages fluently. My library is made up of French and German more than of English books. I am familiar with the literature on that subject and as a sugar chemist I have made a special study of everything relating to sugar."

The opinions of Professors Bogart, Haines, Jackson, Millet, Monroe, Sadler, Sherman and Smith, found in the record and already referred to (Grady Trans., 459-462; McDermott Trans., 457-460), correspond exactly with the opinion of Professor Chandler as above expressed.

(b) *But the same standard for syrup was prescribed in circulars 16, 13 and 17, as in circular 19, and yet glucose was designated in those three circulars for upwards of three years not only as a syrup but as corn syrup. No reason whatever is assigned in the latter circular or in the report of the committee on which it is based for this departure from the former standards and names.*

(c) **The testimony of Doctor Fischer, scientifically considered, has no probative force to show that the chief ingredient of defendants' mixture is not a syrup.**

Doctor Fischer's testimony as to what constitutes a true syrup, or what the public understands a true syrup to be, is summed up in the following extract from his testimony (Grady Trans., 47-48; McDermott Trans., 45-46):

*"In the first place, while the term 'syrup' is used in chemistry and to some extent technically as representing any thick liquid, sometimes in a more restricted sense as a 'thick, sweet liquid,' I believe that the term 'syrup' as describing a food product should be further restricted and should be confined to the syrup produced by the evaporation of the juice of sugar-producing plants. * * * From the standpoint of a food chemist, what I have called true syrup is made by the direct evaporation of the sap of sugar-producing plants, that is, a mere driving off of water; and the solids contained in the syrup are practically the same as those contained in the original sap, only condensed, concentrated. There are slight changes that go on in this concentration; there is invariably a slight caramelization, that is, a burning of the sugar, and a slight inversion of the sugar, but there are no deep-seated changes, whereas in the manufacture of commercial glucose from starch it is necessary to use an extraneous substance, a mineral acid, for the production of the glucose, and the changes that take place in the starch are very deep-seated, chemically speaking."*

But according to the standards of circular No. 19, which Dr. Fisher assisted in preparing, "refiner's syrup" is not produced by "a mere driving off of water" and leaving in the product all the solids contained in the original sap, but all the solids that can be removed by crystallization are removed.

Suppose also that Doctor Fischer does believe that the term "syrup" should be further restricted and confined, as he states, **what figure does his belief cut in the matter?**

So, too, of what consequence is the fact that in making

syrup from the sap of a sugar producing plant but few *deep-seated changes* are made, while in the making of corn syrup the changes are very deep-seated, chemically speaking. This fact seems to have been controlling with Dr. Fischer and also with the supreme court of Wisconsin in determining whether this product of corn is a syrup.

But syrup as popularly known is a finished product with certain qualities. It is known by those qualities and not by the method of its manufacture. It is admitted by the state that the finished product called "glucose" or "corn syrup" has no acid remaining in it, that it disappears in the chemical unions brought about in producing the syrup from the starch of corn; that the product resulting is pure, clean and wholesome, as the supreme court of Wisconsin admits and as the proofs show, and as we say has all the qualities by which a syrup is known to the consumer. What difference does it make, then, *from the standpoint of protecting the consumer against fraud and deception*, by what process the finished product becomes what it is so long as the product itself is known for what it is by its qualities and the name given to it. The consumer does not concern himself with how the article is made or the chemical changes involved in its making, but alone with what the article is.

Doctor Fischer again ventures the opinion (Grady Trans., 197-198; McDermott Trans., 196):

"I believe that the ordinary consumer when he purchases syrup has in mind the manufacture in this country as we mean manufacture, of cane syrup or sorghum or maple syrup, and that he is getting the concentrated sap of some sugar producing plant. I have purposely made quite an extended investigation on that subject and have asked a large number of consumers as to their impressions when they purchase 'corn syrup'."

The statement that the word "syrup" suggests to the consumer only a product produced from the sap of a plant and by evaporation, does not accord with common knowledge and seems to us a desperate attempt, by a so-called food expert, to force into common use what he deems a scientifically preferable name in the place of a well recognized popular name.

Doctor Fischer does not inform us what these consumers he talked with said to him as to their impressions when they purchased corn syrup under that name. Did they tell him they believed corn syrup was made from the sap of the corn-stalk?

He does not say so. To say that anybody in these days of enlightenment believes that the sap of the corn-stalk is the source of supply of the millions of gallons of corn syrup made and consumed in the United States—say nothing of what is exported—would be ridiculous. This is especially so in view of the fact that even Doctor Fischer says there isn't a factory today and never has been, so far as he knows, manufacturing syrup, commercially, from the sap of the corn-stalk.

Doctor Wiley, in the Universal Encyclopedia and Atlas, volume 11, pages 195-196, said as to the production of sugar or syrup from the corn-stalk (Grady Trans., 205; McDermott Trans., 203):

"In a small way and for domestic consumption a fairly good syrup may be made therefrom (maize stalk). Enthusiastic promoters of enterprises for making sugar from maize stalk should be reminded that economically the task is a useless one, so long as cheaper and better sources of raw material are available in practically inexhaustible supplies."

(7) As bearing upon the general recognition of glucose as a syrup and as corn syrup before the Wisconsin statute of 1907 was passed, it is proper to suggest that other states followed in the lead of Michigan and Wisconsin and the Department of Agriculture in such recognition prior to the passage of the state statute in question.

OHIO.

There appears in the Twenty-first Annual Report of the Ohio Dairy and Food Commissioner to the governor of that state, for the year ending November 15, 1906, on pages 24-25, the following statement (Grady Trans., 414; McDermott Trans., 412-413):

"Corn Syrup.

"The various corn syrups have been sold under many different names, but labeled to contain varying percentages of cane syrup and glucose; for instance, 10 per cent cane and 90 per cent *corn* (glucose) syrup; 25 per cent cane and 75 per cent corn; 35 per cent cane and 65 per cent corn."

ILLINOIS.

The Sixth Annual Report of the State Food Commissioner of Illinois for 1905, pages 35-36, contains the following standards adopted by the State Food Commissioner of that state. Under the subdivision, "Fruits and Fruit Products," in a

note is found the following (Grady Trans., 415-416; McDermott Trans., 414, 415-416):

"Corn Syrup may be substituted for the word glucose whenever the latter appears in this bulletin."

The Seventh Annual Report is to the same effect.

Also in the Eighth Annual Report of the State Food Commissioner for January, 1907, at page 398, under the heading "Syrup" (other than maple or molasses), appears the following (Grady Trans., 414; McDermott Trans., 416):

"These syrups are usually sold as table syrups. The name 'table syrup' is not a distinctive name (Sec. 9-First) and all such syrups should be clearly branded with the *true* name of the article, as *corn* and *cane syrup*, etc., thus showing that it is a mixture or compound and showing its components."

On page 201 of the same report is found, in a foot note, "'Corn syrup' may be substituted for the word glucose whenever the latter appears in the bulletin. See rules for labeling No. 26," and on page 203 of the standards, also contained therein, is found the following (Grady Trans., 416; McDermott Trans., 414):

"Glucose Products."

"Glucose, *corn syrup*, mixing glucose, confectioner's glucose, is a thick, syrupy, nearly colorless product, made by incompletely hydrolyzing starch or starch containing substances and decolorizing and evaporating the product."

In the Laws of Illinois, approved May 14, 1907, in the subdivision headed "Misbranded Defined," pages 548-549, appears the following (Grady Trans., 416; McDermott Trans., 414):

"Third. In the case of mixture of *corn syrup* (glucose) or corn sugar (dextrose) or corn sugar syrup, with cane or beet sugar (sucrose) or cane or beet sugar syrup, in food, if the maximum percentage of *corn syrup* (glucose) or corn sugar (dextrose) or corn sugar syrup, in such article of food be plainly stated on the label," it shall not be deemed misbranded.

LOUISIANA.

In the Food and Drugs Standards of the Louisiana State Board of Health, which have the force of law, is found on page 42 (Grady Trans., 415; McDermott Trans., 413):

"Glucose Products."

"Glucose, mixing glucose, confectioner's glucose (corn syrup) is a thick, syrupy, colorless product, made by incompletely hydrolizing starch or a starch containing substance, and decolorizing and evaporating the product. It varies in density from 41 to 45 degrees Baume at a temperature of 100 degrees Fahr."

NEW HAMPSHIRE.

The Sanitary Bulletin, published quarterly by the state board of health, under the provisions of the pure food and drugs laws of New Hampshire, with rules and regulations for the enforcement of the same, contains, under date of October 8, 1907, the State Board's regulation 33, at page 306, as follows (Grady Trans., 415; McDermott Trans., 413):

"Regulation 33. Molasses containing glucose. A mixture of molasses with glucose or *corn syrup* is not molasses, and dealers are notified (or warned) that the offering of such without due notice in response to calls for molasses is fraudulent. In addition to such verbal notice, it is suggested the dealers selling molasses and glucose mixture further protect themselves by the posting in their places of business notices to the effect that molasses and glucose (or corn syrup) mixture is sold here."

IOWA.

The Iowa statute (Grady Trans., 414, 463; McDermott Trans., 461-474) forbids the manufacture, sale or having in possession with intent to sell any article of food which is adulterated or misbranded within the meaning of the statute, and defines "misbranded" as applying to all articles of food or articles which enter into the composition of food, the packages or labels on which shall bear any statement, design or device regarding such articles or the ingredients or substances contained therein which shall be false or misleading in any particular, etc. The statute also requires the label to give the true and correct names of all constituents of mixtures, compounds, combinations, imitations or blends. The act provides for the appointment of a state dairy commissioner and charges him with the duty of enforcing the statute.

On July 4, 1907, the dairy commissioner of Iowa officially issued a set of printed rules, which appear in the record, in which he declares:

"Mixed sugars and syrups of every kind and honey mixed with glucose and other ingredients, require special

labels, showing the name and percentage of the ingredients. The names or title under which they are sold must show the exact character * * *. The name 'corn syrup' or 'glucose' but not the name 'grape sugar' should be used for the liquid product usually known as glucose."

(8) **As further bearing upon the recognition of "corn syrup" as an article of commerce under that name, reference is made to the freight schedules of the great trunk lines of railroad of the country.**

It appears that the Western Trunk Lines Association, composed of the great railroads of the west, maintained from May 30, 1900, down to the time of the trial of these cases in the state court, separate freight rates for glucose, the unmixed article, and corn syrup, the mixed article, by name, and the tariffs from time to time issued by that association are set out in the record (Grady Trans., 330-333, 455-456; McDermott Trans., 329-332, 453-454). They thus appear in the tariff schedules:

"Glucose, *corn syrup*, grape sugar and jellies, straight or mixed, carloads, minimum weight 30,000 pounds."

The rates are given. The testimony also shows that separate rates are maintained on eastern lines for "glucose" and "corn syrup," representing the unmixed and mixed article, respectively.

These proofs show that as far back as May, 1900, the railroads of the country, or at least those of the west and east, recognized the existence of corn syrup as a distinct article of commerce, separate from glucose, and not only established but published rates thereon. This evidence shows that "corn syrup"—the mixed article—was being shipped under that name and recognized under that name in the freight tariff schedules as an article of interstate commerce in carload lots. The article must have been known extensively as an article of commerce under that name or it would not have received special recognition annually in the published tariffs of the great railroad systems of the country as a separate commodity.

(9) **Trade Journals, etc.**

The defendants put in evidence twenty-five or more trade journals and printed price lists of wholesale grocers, running back to July 1, 1904, in which "Karo Corn Syrup" and numerous other brands of corn syrup are advertised. These journals and price lists are published at widely distributed points, territorially, throughout the United States (Grady Trans., 376-380; McDermott Trans., 374-378).

(10) **Extensive and expensive advertising of the defendants' article in 1903 and 1904, in Wisconsin newspapers and in general publications throughout the United States.**

For ten months during 1903 and 1904, after the first two sets of federal standards were adopted and after their express recognition in the Wisconsin act of 1905, the proofs show that one manufacturer alone, the Corn Products Refining Company, the predecessor of the manufacturer whose goods were sold by the defendants, expended \$500,000 on the faith of said standard in the advertising of "Karo Corn Syrup with Cane Flavor"; and this advertising was done in fifteen or twenty different states of the Union, including Wisconsin, not only in 38 weekly and national publications, like *Ladies' Home Journal*, *Everybody's Magazine*, *Saturday Evening Post*, *Collier's Weekly*, *Good Housekeeping* and *Christian Advocate*, but as well in the daily, semi-weekly and weekly newspapers (Grady Trans., 138-144; McDermott Trans., 136-142). In Wisconsin 48 daily, semi-weekly and weekly newspapers were used, embracing different nationalities, and all selected with special reference to wide publicity. Each issue of these 48 publications, aggregated over four million copies, and of the national publications over twelve million copies. The character of these publications is shown in Exhibits 38 to 105 inclusive, contained in a book found among the exhibits, not attached to the record, but made by reference a part of the record and in possession of the marshal of this court (Grady Trans., 481; McDermott Trans., 496).

Aside from the proofs which will hereafter be considered with respect to the long continued use of the name "corn syrup" as a synonym for glucose and as a name of the mixture of glucose and cane syrup, in trade with consumers, can there be any doubt that the Wisconsin legislature in 1905, when it passed the act of that year recognizing the name of "corn syrup" as truthful as applied both to the chief ingredient of the defendants' mixtures and to the mixtures themselves, had knowledge of the established federal standards and of the Michigan and other statutes and decisions already referred to and of the wide-spread advertising of the article throughout the state and the United States, and for that reason, and the fact that it had always been recognized as a syrup, and had for many years been sold as "corn syrup," gave legal recognition to the fact that this article is a syrup and is commercially known as "corn syrup"?

To say that after all this publicity in the statutes of the states and official standards of the Department of Agriculture, the newspaper and magazine publications, and recognition in

the scientific literature of the subject, there could be, when the statute of 1907 was passed, any deception or fraud practiced on the public by calling this article a syrup or "corn syrup with cane flavor" is beyond belief.

(11) A mixture of glucose and other syrups, for use as table syrup, has for more than thirty years been known by and sold to the trade and to consumers as "corn syrup," although it is only since 1906 that the words "with cane flavor" have been added to the name on any of the labels.

This argument will apply as well to the McDermott case as to the Grady case.

It seems altogether proper to set out at some length the testimony on this subject, as it shows the familiarity of the public with defendants' mixtures, first under the name of "corn syrup" and in more recent years "corn syrup with cane flavor," not only in Wisconsin but elsewhere in the United States.

(a) It appears from the testimony we will examine that manufacturers of this article, known as mixers, for thirty years or more, have sold glucose mixed with other syrups to wholesalers and retailers as "corn syrup," in barrels and other smaller packages; and that during all that time, until more recently when it has been sold in small cans, it was sold to consumers by the gallon as "corn syrup" and also under different fancy names, *but always as a syrup and always as corn syrup.* It did not begin to be put up in cans until about 1895, and from that time until about 1900 it was branded, when not sold in bulk by the gallon, mostly with the private brands of retail dealers—each dealer having a brand of his own—such as "Table Syrup," "Golden Syrup," "Honey Drips," "Golden Drips," "Rock Candy Drips," etc. It was during all that time, however, known to and called for by consumers as "corn syrup," although usually bearing the fancy brands just stated. *In 1900 and from then on to 1903 these fancy names or brands were being gradually replaced by manufacturers with labels of their own, bearing the name "corn syrup";* and when the Michigan act of 1903 was passed—which seems to have been the first statute on the subject—manufacturers began quite generally to brand the article as "Clover Leaf Corn Syrup," "Golden Glory Corn Syrup," "Kairomel Corn Syrup" and "Karo Corn Syrup" and the like. At first the ingredients were not named on the labels but later on they were. Finally in 1906 the manufacturers of the article sold by the defendants added to the name "corn syrup" the name of the flavoring syrup with which the corn

syrup was mixed, in this manner: "Karo Corn Syrup with Cane Flavor." The name "Karo" is a trademark. Such was the form of the labels at the time the Wisconsin act of 1907 was passed, being put out by the Corn Products Refining Company, the manufacturer which put up the article sold by the defendants, although many other different labels, but all bearing the name "corn syrup" or "corn syrup with cane flavor" for the mixture and "corn syrup" for the chief ingredient were being put out by this company, as shown by the record.

(b) MR. BRADSHAW, a witness for the defendant, testified that he had been engaged in the business of mixing syrups for 43 years in Chicago, and for 35 years had known glucose when mixed with cane or refiner's syrup for table use as "corn syrup," and during all that time had sold it to retail and other dealers by that name (Grady Trans., 171-172, 174; McDermott Trans., 170-171, 176). He produced 29 orders and four inquiries for quotations of prices, dated during the month of January, 1897, for the article as corn syrup (Grady Trans., 179-181, 445-455; McDermott Trans., 177-180, 443-453). These orders and inquiries are from points in the western, southern and middle states. He selected them at random from his files for January, 1897, and his orders were numerically about in equal proportion he said from month to month (Grady Trans., 179, 182; McDermott Trans., 177, 180). He said most of his customers had their own special brands and usually asked for their own branding, and shipments, until the Michigan law went into effect in May, 1903, were usually made under the special brands of his customers, although the orders were for "corn syrup," and the sales were made under that name (Grady Trans., 172, 177; McDermott Trans., 170, 171, 175-176). Exhibit 148 (Grady Trans., 181; McDermott Trans., 179), an order from L. T. Pingor & Company of Danville, Va., dated January 15, 1897, he said, shows the form in which his orders usually came. It orders "40 barrels of No. 39 corn syrup," with directions to "brand it R. W. Lawson & Co. Honey Drips, South Boston, Va."

The witness said the unmixed article has always been called "glucose" until within the last year when sold to manufacturers of confectionery, etc., and that the mixed article for table use has during the past 35 years been continuously known commercially as "corn syrup" (Grady Trans., 172, 177-178; McDermott Trans., 170, 176). He said his firm previous to 1890 sold a great deal of the article to retail dealers, principally in barrels, half barrels, kegs and kils. That since the Michigan law went into effect they began branding the barrels

sent to that state, and possibly Wisconsin, "corn syrup," and for the past three or four years have been putting it up in cans and have been selling it as "corn syrup" in both cans and barrels (Grady Trans., 172-173, 177; McDermott Trans., 170, 171, 175-176).

MR. CROSSMAN'S testimony is especially significant. He was from 1874 to 1902 a merchandise broker in Milwaukee, dealing with jobbers. He first heard and knew of the name "corn syrup" in 1870. There was a refinery at Crown Point, Long Island, making corn syrup. It was quite a large refinery and sold the syrup as "corn syrup" (Grady Trans., 108-109; McDermott Trans., 106-107). He later knew of a factory manufacturing corn syrup in Milwaukee in 1876 or 1877. He handled all the product of this Milwaukee factory for one year. It put up corn syrup in barrels and he sold it that way. This refers to the mixture of glucose and corn syrup and of other syrups for table use. He afterwards sold the same syrup for a Rockford refinery by the barrel exclusively. He does not think the article was put up then in any other way than in barrels. Later on he sold the same article for a Davenport refinery in cans and continued to sell corn syrup until 1902 when he went out of business (Grady Trans., 109-112; McDermott Trans., 107-108).

Mr. Crossman produced a cipher code book (Grady Trans., 110-111, 112; McDermott Trans., 108-109, 110), published in 1881. This code was used between New York brokers and their customers. The book shows that the word "Merged" means "Send samples *corn syrup* from ——— to ———."

Mr. Crossman says he never sold this mixed article under any other name than corn syrup, and that clear down to 1902, when he went out of business. He sold all the wholesale grocery houses in Milwaukee (Grady Trans., 110-112; McDermott Trans., 108-110).

MR. JOANNES testified for defendant that he had been in the grocery business continuously at Green Bay, Wisconsin, since 1872—for eight years as a retailer and since 1880 exclusively as a wholesaler—doing a large business. For 25 years he had continuously known and dealt in the commodity known as corn syrup (Grady Trans., 277-278, 279-280; McDermott Trans., 276-277, 278-279). Exhibits 154 and 155 (Grady Record, pp. 721, 722; McDermott Record, pp. 721, 722) his firm bought at first in barrels and later in half barrels, five and ten gallon kegs, and then in jacket cans and tin cans in different sizes, from two pounds to twenty pounds each. Bought from a number of different firms located in Buffalo,

N. Y., and Marshalltown and Davenport, Ia., Chicago and Milwaukee. Had dealt in the article extensively. Has 28 traveling salesmen covering all of Wisconsin north of a line running west of Manitowoc and the upper peninsula of Michigan (Grady Trans., 279-280; McDermott Trans., 278). Did not sell in cans until six or seven years ago, then adopted the "Clover Brand" (Exhibit 154) (Grady Trans., Record 721; McDermott Trans., Record 721), and the "Karo" brand (Exhibit 143) (Grady Record, 720; McDermott Record, 720). We have used the Clover brand very extensively. The cans have always borne the name "corn syrup." We began handling Karo brand as soon as it came into the market. Have always sold it to our customers as "*corn syrup*," although the packages we sold it in until six or seven years ago—when we began to sell it in cans—did not have the name "corn syrup" on (Grady Trans., 278-280; McDermott Trans., 277-279). Before that time we had our own brands, such as "Fancy Drips," "Honey Drips" and "Table Syrup." We would show customers when they came in (the store) a cane syrup and corn syrup and would explain to them why corn syrup could be sold for less. *Customers would select corn syrup in preference to cane syrup at the same price. Fifteen years back corn syrup commenced to get a very strong hold on the public and has been constantly increasing. The trade in corn syrup has increased to such an extent that it has finally discontinued the sale of cane syrup with us. Both the price and the quality is what did it (Grady Trans., 288-285; McDermott Trans., 286, 283). "We always bought it as corn syrup and represent it to our trade as corn syrup. We had in the office and our traveling men carry with them samples of cane syrup and corn syrup." Never knew this syrup to be called "glucose mixture" to the trade—to consumers, but understood from refineries that it is a mixture of glucose and other combinations. "With them (our customers) it has always been understood and represented as corn syrup, both in their orders and in our sales."* In their ordering they would write or speak of corn syrup in wanting this article (Grady Trans., 279; McDermott Trans., 280-281).

MR. OTT, vice president of the Steinmeyer Company of Milwaukee, testified for defendant (Grady Trans., 406-408; McDermott Trans., 404-406), that he had been a wholesale and retail grocer in Milwaukee for 31 years and his company is doing a large business, about an equal amount between wholesale and retail. He had known this article "corn syrup" for 35 years and dealt in it all that time. Our customers have known the article by that name. We bought the article until

ten years ago all in barrels, then began to buy it in cans; *always bought it as "corn syrup."* The barrels we bought it in had on them our private brands, like "Amber Syrup" and "Sweet Clover Syrup." When we began to buy in cans we had several labels, "Old Glory" (Exhibit 162) and "Kairomel!" (Exhibit 131), and one shipment of "Karo." These were from the Corn Products Company. We bought considerable from other factories. Being shown Exhibit 131 (Grady Record, 708; McDermott Record, 708) the Kairomel label, the witness said that it was a special brand used by his firm, exclusively, in Milwaukee. We have bought and sold that brand for about 10 or 11 years and under corn syrup labels for 5 or 6 years. *Corn syrup is called for by our customers as "corn syrup"; they have been doing this from the time it was first introduced.* It is a popular article. People seem to prefer it to cane syrup because it is smooth to the taste. We have a considerable number of customers for this Kairomel brand of corn syrup (Grady Trans., 407-409; McDermott Trans., 405-406). We use ten or twelve carloads of corn syrup a year. There were a great number of syrups in the market before the Wisconsin law of 1905 was passed. Table syrup was sold under various names prior to the law of 1905, among other names "Sweet Clover Syrup," "Amber Syrup," "Tennessee Plantation Sorghum" (Grady Trans., 409-410; McDermott Trans., 408-409).

To my knowledge, Mr. Ott said, an article was put out in cans as long ago as ten years labeled corn syrup, *so that it went to the consumer as corn syrup, and by a firm other than the Corn Products Company.* The various brands under which syrups were sold I think were marked "corn syrup." They were known in our business always as corn syrup and people asked for it (Grady Trans., 407; McDermott Trans., 405-406). This has been so for ten years, in cans. The syrup we bought 25 years ago as "corn syrup," but was not marked that way on the barrels. It was marked under our private brand; *but it was sold to consumers as corn syrup 25 years ago* (Grady Trans., 412; McDermott Trans., 410). Prior to ten years ago we bought all the syrups in barrels and we sold it out of the barrels at retail to our customers in jugs or cans as table syrup. I have a recollection (Grady Trans., 413; McDermott Trans., 411) of selling in cans an article labeled as corn syrup as early as ten years ago besides this Kairomel brand.

Rightly understood, there is no inconsistency in Mr. Ott's testimony or in the testimony of Mr. Joannes, as will no doubt be urged by counsel for the state. There is no inconsistency between the fact that a dealer may have special

brands of his own, like "Clover Syrup," "Amber Syrup" or the like and have his barrels marked with that brand, and yet the syrup be bought as corn syrup and known by the consumer as corn syrup. A consumer might come into a store and ask for corn syrup and the grocer might say I have the "Clover Brand" or the "Amber Brand" of that syrup. The customer might not know the grocer's special brand or he might know it, and yet all the time want corn syrup and ask for corn syrup and get the grocer's special brand.

MR. SMITH, manager of the syrup department of the Corn Products Refining Company, testified for defendants (Grady Trans., 353-354; McDermott Trans., 352-353) that from 1879 to 1890 he was a traveling salesman for B. B. Skelly Syrup Company of Chicago, and the next ten years was with Bradshaw & Waite; then for two years had charge of the syrup sales of the United States Sugar Refining Company at their Chicago office; from 1903 to 1906 was in charge of the sales of the Warner Sugar Refining Company of Waukegan, Illinois, and from 1906 to the present time has been with the Corn Products Refining Company.

This witness had known corn syrup as an article of trade under that name since 1879 and first began to sell it under that name at that time, as a traveling salesman, to the larger retail trade in all the larger towns of Wisconsin, Minnesota, Iowa, Kansas and out to the Pacific Coast. Was selling other syrup too, all grades. Didn't sell under brands bearing names like "Karo," "Diamond Drips" or anything of that kind, but sold it as "corn syrup No. 6" or "corn syrup No. 25," in barrels, half barrels and kegs (Grady Trans., 354-355; McDermott Trans., 352-353). *It was a very popular article under that name as far back as 1879. Two or three years before that cane syrup, now called refiner's syrup, was a very popular article because corn syrup was very little known, but on account of the color and smooth flavor of corn syrup it became popular. I have very frequently heard customers (consumers) during those years—1879 to 1890—call for syrup by that name. When I say that I include Wisconsin (Grady Trans., 355; McDermott Trans., 353).*

This witness said corn syrup began to be put out in cans in 1895. The sales in barrels rapidly decreased as sales in cans increased. Sales are still made in barrels and to the Wisconsin trade (Grady Trans., 355; McDermott Trans., 354). Before that customers would have their own private brands. The syrup would be ordered by jobbers from my concern, usually under our own number, as "No. 2 corn syrup," "No. 5" or "No. 10" corn syrup. Some times they would order it

under their particular brands and some times "so many barrels of corn syrup." If it was to be branded they would be particular to specify the brands they wanted (Grady Trans., 356-357; McDermott Trans., 354-355).

I first knew of labels bearing the name "corn syrup," the witness said, in 1900, he believed, but would not be sure that it was earlier than 1903. He knew the Kairomel brand. It was put up by a competing company. I knew of that as early as 1903. I knew of "Golden Glory" corn syrup, "Atlas Corn Syrup" and the "Crescent" corn syrup about 1905; also the "Clover" brand of corn syrup; couldn't fix the dates exactly. He said, "I think Karo corn syrup came out in 1903 (Grady Trans., 357; McDermott Trans., 355-356).

During these eleven years (1879-1890) the witness said corn syrup established a very wide and general reputation, both as to name and quality, so as to readily supersede largely the demand for cane syrups, and continued to do so as long as he sold syrup (Grady Trans., 358-360; McDermott Trans., 358). It became a very popular article under the name corn syrup; was sold as corn syrup and customers became familiar with that name (Grady Trans., 360; McDermott Trans., 358-359). The trade demanded that it be branded with their own particular brands. *When a consumer bought, we will say for example, "Honey Drips," the consumer was not being deceived, he knew he was getting corn syrup. I know that the consumer knew it.*" (Grady Trans., 363; McDermott Trans., 361).

The witness said, "I have sold the unmixed glucose to the retail trade as a table syrup, just like Exhibit 1. Not in large quantities, but occasionally a man would want a white syrup in limited quantities. It is a colorless article without any distinctive flavor and is insipid in taste. I understand that it is the mixture that makes the article popular and enables us to sell the corn syrup as a table syrup. People as a rule would not buy glucose unmixed as a table syrup" (Grady Trans., 364-365; McDermott Trans., 362-363).

This witness testified that his company sold and shipped into Wisconsin from May 1, 1905, about the date the act of that year went into effect, and July 13, 1907, when the act of that year—here in question—became effective, 510 carloads of corn syrup containing 3,250,000 cans of various sizes, all bearing corn syrup labels, approved by the dairy and food commissioner of the state, and 11,500 barrels, half barrels and other wooden packages, also bearing the corn syrup label (Grady Trans., 358; McDermott Trans., 357).

These cans of syrup must have been later sold to consum-

ers, and the syrup from the other packages must also have been sold by the gallon to consumers.

We say also of the testimony of this witness, as of the testimony of Mr. Ott and Mr. Joannes, that there is nothing inconsistent between the consumer knowing the article as corn syrup and yet the larger packages like barrels being specially branded with the brands of a particular dealer.

MR. McKINNEY was sworn for the defendants (Grady Trans., 138; McDermott Trans., 136) and testified that in 1903 and 1904 he conducted the campaign of advertising "Karo Corn Syrup with Cane Flavor" for the Corn Products Company. Among other things he testified he originated the name "Karo" as applied to corn syrup and had the name trademarked for the company in 1903 (Grady Trans., 138-144, 147; McDermott Trans., 136-142, 146).

The witness on cross examination swore that before getting this job of advertising he had not heard definitely about glucose, except that he thought like everybody else "that it was some nasty thing made out of dangerous articles" (Grady Trans., 150; McDermott Trans., 148). He expressed this idea to the officials of the Corn Products Company and they agreed with him that it was not a good thing to misrepresent it, to advertise it as glucose. "I was very sure that glucose was not a good term to use in advertising the article." "I don't think for common usage glucose is the right word to use" (Grady Trans., 155; McDermott Trans., 153-154). "I haven't been able to find a woman that knew what glucose was yet. We made our advertisements to make it plain to them. I didn't think that glucose was a nasty thing; I say that was the common understanding of it."

The printed and pictorial matter appearing in the publications put out by this witness under the employment of the Corn Products Company and the names and dates of the newspapers and magazines in which the publications appeared are set out in the testimony of this witness (Grady Trans., 138-148; McDermott Trans., 136-146), and are contained in the book deposited with the marshal of this court and marked on the back "16 Corn Products" and on the front cover "Circuit Court, Dane County, Wisconsin, filed April 17, 1909, Lawrence O. Larsen, Clerk" (Grady Trans., 148; McDermott Trans., 146).

MR. BLAIR testified for the defendant (Grady Trans., 165-168; McDermott Trans., 163-166) that he is engaged in the business of printing labels as a salesman for R. J. Kitt-ridge & Co. Has been with that company for six years and

before that time was with the United States Printing Company. He said, we have printed corn syrup labels for the Corn Products Company or Refining Company; first one was like Exhibit 131 (Kairomel Brand) (Grady Record, 708; McDermott Record, 708), printed *April 28, 1900*. We continued the printing of labels of that same brand down to July 30, 1907. It was never called anything else. The first order was for the Illinois Sugar Refining Company, was June 22, 1902. The same label was afterwards put out for the Corn Products Manufacturing Company of Davenport, Iowa. We began putting out Exhibits 132, 133, 134 and 135 (Grady Record, 709, 710, 711, 712; McDermott Record, 709, 710, 711, 712) in 1902 and have continued that ever since except the changes of name of company at the bottom of the label. Exhibits 136 to 142, except 140 (Grady Record, 713 to 719; McDermott Record, 713 to 719), were put out about the same time as those just mentioned. Exhibit 140 (Argo Brand) was put out within the last two years. *The words "with cane flavor" did not appear on the labels when they were first issued but were inserted later.* Exhibit 143 (Karo Corn Syrup), without reference to cane flavor, was put out May 21, 1903.

The witness said that from 1902 to 1907 his firm printed of these particular labels about 200,000,000; of Kairomel label from the inception to 1907 about 16,000,000; of Karo labels, 37,000,000 (Grady Trans., 168; McDermott Trans., 166). These were printed and delivered to Corn Products Company as they were required under different orders given from time to time. We supplied them, the witness said, with all their corn syrup labels from 1900 to the present time. So far as these labels are concerned the name "corn syrup" came into use in 1900.

MR. REEDS, a traveling salesman for the Corn Products Refining Company, testified (Grady Trans., 349-352; McDermott Trans., 347-350) he had traveled for 15 years as a salesman. Began to travel for the Eau Claire Grocery Company January 1, 1906, and had been selling corn syrup ever since that date. Had not sold any kind of syrup before that time. Traveled for the Eau Claire Grocery Company in the northwestern part of Wisconsin; traveled east and south of Eau Claire on the Wisconsin Central and Northwestern lines. *"When I first went to work for that company I found an established trade all over the territory for corn syrup. I sold the Clover and the Karo brands. The Clover brand is like Exhibit 154, omitting "for Joannes Bros. Company, Green Bay, Wis." In place of that was "Eau Claire Grocery Company." The Karo brand was the same as Exhibit 143. Con-*

tinued the sale of both these brands during 1906. I sold the retail trade only for this company. The witness said he began in January, 1907, to travel for the Corn Products Refining Company in Wisconsin, Northern Michigan and Winona and Duluth, Minnesota, covering all the principal cities in that territory but not all the smaller towns. *"I found an established trade for corn syrup in this territory when I first started (Grady Trans., 351; McDermott Trans., 349). I have sold corn syrup under all the brands—Exhibits 132, 137, 141, 142, 162, 184, 185 (Grady Trans., 351, Record, 709, 714, 718, 719, 723, 725, 726; McDermott Trans., 350, Record, 709, 714, 718, 719, 723, 725, 726.)"*

I have heard these syrups called for quite often by customers all over the territory in retail stores while I have been traveling. They would be called for as corn syrup (Grady Trans., 352; McDermott Trans., 350).

MR. SCOTT, the Wisconsin State Food Inspector since 1905, testified for the state (Grady Trans., 290; McDermott Trans., 288-289) that he was familiar with the different brands of corn syrup put out by the Corn Products Company. The Karo brand is being sold extensively throughout the state, and has been so sold for three years. Can't tell how much longer before that; wasn't in the business before that.

MR. EMERY, the State Food and Dairy Commissioner, was sworn for the state and testified (Grady Trans., 302-304; McDermott Trans., 300-303) that before the law of 1905 went into effect, but after its passage, he officially approved, as State Dairy and Food Commissioner, labels like Exhibits 131, 139, 141, 142, 154, 155, bearing the name "corn syrup," but without the words "with cane flavor." He said he required the labels to comply with the law of 1905.

DR. FISCHER testified for the state (Grady Trans., 70; McDermott Trans., 68) that from the fall of 1905, when the law of that year went into effect, down to the present time, "I know that a table syrup has been sold under the name of 'corn syrup' very extensively in Wisconsin."

DR. WAGNER testified for the defendants (Grady Trans., 369-374; McDermott Trans., 367-372) that he is one of the directors of the Corn Products Refining Company, and that that company had factories in Illinois, Indiana, Iowa, Ohio and Nebraska, and to his personal knowledge had put out a table syrup under the name "corn syrup" as early as the year 1900. It was put out in that year in tin cans, barrels,

kegs, pails and jacket cans. The larger part of the product was put out in cans. The largest proportion of these cans bore our factory "corn syrup" labels. They were our labels as distinguished from the labels of the trade. In 1897 this company purchased a number of factories of other companies and the syrup business was concentrated at Davenport, Iowa. This company continued to put out this article under the brand of "corn syrup"—brands like Golden Glory corn syrup—as its predecessors. Some of the brands in 1900 were those of jobbers which did not bear the words "corn syrup." The brands of our company bore the name of corn syrup in one form or another, either in the title, in the name of the product or somewhere on the label, as information to the public—the consumer. By way of illustration, the brand would be "Golden Glory Table Syrup" and in the space containing the words "table syrup" were put in prominent type "90% corn syrup, 10% refiner's syrup." *We began as far back as 1900 introducing the name "corn syrup" on our labels, replacing the other labels in that way.* It took some time to get rid of the old brands which did not have the name corn syrup, *but from the year 1903 we have been on a strictly corn syrup basis.* I know of that fact, because in 1903 we started an active campaign of advertising, *"preaching the gospel of corn syrup,"* through N. W. Farr & Company of Philadelphia, more particularly H. N. McKinney. In 1903 and 1904 we spent something like \$500,000 in this campaign of advertising. We began in 1903 with the Karo Corn Syrup label and have continued it ever since.

The sales of corn syrup, Dr. Wagner said, have reached every state of the Union and Canada also. Wisconsin is one of the states calling for a large supply of the syrup, but other states call for it in the same proportion (Grady Trans., 374; McDermott Trans., 372-373).

FORMER SALES UNDER OTHER BRANDS IMMATERIAL.

(12) The fact that the same mixtures as those sold by the defendants were, for a considerable time prior to the Michigan act of 1903, sold as table syrup under numerous private brands or fancy brands not containing the words "corn syrup," even though these brands appeared upon cans or other containers purchased directly by consumers—which was true only to a limited extent—would not justify the statute forbidding the sale of such mixtures under the truthful name of "corn syrup with cane flavor," or the name of "corn syrup," and particularly would not justify the statute excluding en-

tirely from the label all reference to the fact that the principal ingredient in the mixture is a syrup. The thing to be prevented in such a case is a false or misleading designation of the article or its ingredients, on the label, and not its sale under a truthful name. To enact that an article shall not be branded or sold as a syrup or as "corn syrup with cane flavor," or even as "corn syrup," in order to prevent its sale as "Honey Drips" or "Rock Candy Drips" is altogether unreasonable and unjustifiable. It is not a reasonable or appropriate means of preventing sales as "Honey Drips" or "Rock Candy Drips" to enact that it shall be branded and sold only as "glucose" or "glucose flavored with refiner's syrup." Such an act does more than prevent a sale of the article under its so-called insufficient or misleading brands or names. It prevents its sale under a truthful name and one which deceives no one. Such an evil may be remedied by the adoption of means reasonably adapted to the desired relief and which do not impair the property rights or liberty of the citizen in carrying on his business in a way not harmful to the public, but not otherwise.

(13) It would seem that this long and universal recognition, historically, scientifically, legislatively, officially and commercially, of glucose as a syrup, and especially the mixture of it with other syrups as "corn syrup" and "corn syrup with cane flavor," would put beyond all cavil the fact that there can be no deception of the public in calling the article a syrup or in calling it "corn syrup," and especially "corn syrup with cane flavor."

How long and to what extent must a word be recognized as truthfully designating the qualities of a common article of food before it shall have permanent lodgment in the language as a lawful designation of the article? It would seem that an uninterrupted and universal acceptance of it for a hundred years, or even a quarter of that time or much less, by those interested in the subject, should be deemed reasonably sufficient to remove its use beyond the charge of being deceptive.

SECOND. It was claimed in the trial court and is at least implied in the decision of the state supreme court, that "corn syrup" is a deceptive name because that name was used many years ago with the name "corn-stalk syrup" to designate a syrup made, experimentally, from corn stalks, although no such article is being made now and never has been made commercially and it is likely never will be in the future.

(1) It was suggested in the trial court that during the time of Cortez in Mexico and the Revolutionary War in this

country, and even since then in 1843 and 1844, syrup was made, to a limited extent, but not commercially, from the corn stalk, and that such syrup was called by the names "corn syrup" and "corn-stalk syrup"; and also that in the reports of the commissioner of agriculture of 1877 and 1879, 1881 and 1882, analyses of the sap of maize and sorghum are given with the percentage of sugar in the juice (Grady Trans., 187-188, 202-204; McDermott Trans., 186-187, 200-203). It is intimated, therefore, that the time may come when the name "corn syrup" may be applied to a syrup produced from the corn stalk. It is admitted that there is neither sugar nor syrup on the market at the present time manufactured from the juice of the corn stalk, and that the manufacture of sugar or syrup from that source has never been commercially practiced (Grady Trans., 98-99, 202; McDermott Trans., 96-97, 201). It is also admitted that Doctor Wiley, in speaking of the manufacture of syrup from the corn stalk, in an article in Volume 11, Universal Encyclopedia and Atlas, pp. 195-196, already quoted, in effect declares that such a product is merely the dream of an enthusiast and that "*economically the task is a useless one as long as cheaper and better sources of raw material are available in practically inexhaustible supplies.*" Dr. Wiley must have referred to corn as one of the cheaper and better sources of syrup supply.

It is also admitted that "commercially speaking" corn means the kernel and not the stalk (Grady Trans., 77, 252; McDermott Trans., 75, 250-251).

PROFESSOR CHANDLER spoke in his testimony of these early experiments with the juice of the corn stalk "as abandoned experiments," and that syrup from that source has never been commercially produced. He says that if it should be produced the proper name for it would be "corn-stalk syrup" (Grady Trans., 252; McDermott Trans., 250-251). Dr. Fischer, the state's expert, also says that *that* name would be a correct name for such a product (Grady Trans., 205; McDermott Trans., 203). This certainly would be the proper name, just as syrup from sugar-cane is called "sugar-cane syrup." Even the Wisconsin statute here attacked recognizes the latter name, sugar-cane syrup, as proper.

(2) **Alleged government investigation into the practicability of manufacturing corn stalk syrup a myth.**

But Dr. Fischer also suggested on behalf of the state that recent newspaper reports show that the corn stalk may be put to profitable use for paper pulp, and he therefore concludes that the business of producing, *commercially*, a syrup

from the sap of the corn stalk *may* become a profitable business, and hence "that a true corn syrup may become a commercial commodity." He says the newspapers refer to recent patents that have been taken out and investigations made by the government along that line (Grady Trans., 201-202, 195; McDermott Trans., 200, 194). On cross examination, however, he said, "I wouldn't even want to say that it (taking out patents) was back sixty years ago or only recently," and he doesn't know whether the investigations have been successful or been failures.

The defendants produced on the witness stand Dr. A. G. Mannes (Grady Trans., 323-324; McDermott Trans., 321-323), the patentee of these so-called recent patents referred to by Dr. Fischer for producing paper from corn stalks, and it was ascertained that he had taken out the only patents of that character that had been taken out in recent years—three patents dated in 1906 for making paper fiber from corn stalk, and also for an animal food and a "food extract," but not commercial syrup or sugar. He said his partner was engaged in the experiments at Washington in connection with the Department of Agriculture, *but that such investigations are not into the subject of sugar or syrup making from corn stalks.*

Dr. Mannes is a chemist of long experience, and testified that *there is a strong bitter principle in the corn stalk*, and although he had never experimented to determine whether it could be removed so as to "get a commercial product of sugar or syrup out of it," yet "if I were to be asked whether I thought it could be done, whether it would be profitable to do it commercially, I would say no."

It does not seem from this testimony—and it is uncontradicted—as though there would be very soon much need of "corn syrup" as a name for a commercial "corn-stalk syrup," even if it would be proper to use "corn syrup" as a synonym for "corn-stalk syrup." It certainly will not be required until it is demonstrated that the bitter principle in the product can be eliminated, and the cheaper and better sources of raw material for syrup have failed, so that a commercial article of syrup may be profitably made from that source.

It would certainly seem unwarranted to strike from the English language a name which has been used for thirty years or more and is now familiar in the literature of the subject, in trade and to the consumer as a name for syrup produced from corn in the kernel, in order that it may possibly be used some time in the far distant future—but in all probability never—to designate a syrup to be produced from the stalk of corn, which, when produced, should be called "corn-stalk syrup" instead of "corn syrup," in order to avoid deception.

VII.

THE McDERMOTT CASE SPECIALLY CONSIDERED.

(1) Most that has been said in respect to the Grady case is equally pertinent to the McDermott case. The difference in the cases consists alone in the omission of the words "with cane flavor" from the name of the mixture on the McDermott label, and the difference in the proportions of the ingredients contained in the mixture. The difference in the proportions, when those proportions appear plainly designated on the label, is unimportant, in view of the fact that syrups are of differing degrees of sweetness and that the tastes of the consumers demand such difference. There can be no deception in the fact of this differing degrees of sweetness or strength of flavor so long as the consumer knows just what he is getting, and in all probability wants just what he gets.

The omission from the name of the mixture of the words "with cane flavor" is the only matter worthy of serious consideration. The name "corn syrup" taken alone without any explanatory statements made in connection with the name on the label does not indicate that the article is a mixture of corn syrup and a flavoring syrup, although there can be no deception in the label when it is considered as a whole. The fact that it is a mixture and that it is composed of 90 per cent of corn syrup and 10 per cent of cane syrup is plainly stated on the label. Any one who desires to inform himself as to what the article is which he is buying, need only glance at the label and he is informed. The courts have decided that labels no more specific than this are not deceptive or misleading under the Food and Drugs Act of Congress.

United States vs. 779 Cases of Molasses (C. C. A.)
174 Fed. 325.

United States vs. 68 Cases of Syrup (D. C.) 172 Fed.
781.

In re Wilson (C. C.) 168 Fed. 566.

For all the years prior to 1903 that the mixture, composed of glucose or corn syrup and a small percentage of refiner's syrup or sugar-cane syrup, has been sold, the proofs show it has been sold as corn syrup. The committee of scientists appointed by the National Academy of Sciences, at the request of the Commissioner of Internal Revenue in 1883, found this combination being sold under the name of "corn syrup" at that date. The proofs show that it has been sold continuously under that name ever since. The syrup mixers, wholesale and retail grocers, commission men and traveling salesmen who

testified at the trial, had known this mixture commercially for many years under the name "corn syrup." The Wisconsin and Michigan statutes, already referred to, recognize the same mixture by the same name without referring to the ingredients composing it.

The Michigan court, in *People vs. Harris*, 135 Mich, 136, 140-141, said of the Michigan statute:

"The title of the act provides for a sale of corn syrup, and in its body provides that when cane syrup is mixed with it, the manufacturers and dealers shall state the proportionate ingredients. *The small amount of cane syrup used does not change the character of the general product any more than salt changes the character of bread or sugar that of cake; and the act permits the sale of the mixture as corn syrup.*" (Italics ours.)

While the ten per cent of cane syrup gives a cane flavor and a slight added sweetness to the mixture, it does not change its general character as a table syrup, nor impose upon the purchaser. It adds to the value and desirability of the article as a food syrup instead of detracting from it. The addition of the cane syrup is not an adulteration, nor is it harmful, *but gives to the consumer the very elements of flavor and sweetness which he desires and knows from the taste of the mixture it possesses.* What the added element is, the label plainly and conspicuously informs the purchaser and consumer.

(2) But let it be admitted that the state might, and we have no doubt it may lawfully, require the seller of such a mixture to give it a name which in itself shall inform the purchaser that it is a mixture of corn syrup and cane syrup, or at least a name that shall not exclude the idea that it is a mixture. But that is not what the state has done in this instance. It has forbidden the use of the name "syrup" for the chief ingredient of the mixture, and compels the use of the name "glucose" instead of "corn syrup" as a name both of such ingredient and of the mixture. This is quite a different thing from requiring that the name of the mixture shall not be "corn syrup," when it is composed of corn syrup and a small percentage of cane syrup. The means adopted by the state for correcting the only evil that exists in the name, if it be an evil, is not reasonably adapted to the accomplishment of that purpose, but for the accomplishment of another very different and unauthorized purpose. The statute within the authorities cited is unreasonable, arbitrary and unduly oppressive.

This is all that need be said specially with respect to the McDermott case, as in all other respects the cases are identical.

VIII.

The result of the argument is, therefore, the invalidity of the state statute, not only because of its inseparable inclusion of interstate and intrastate commerce, and as an unwarranted regulation of interstate commerce, but as an unreasonable and arbitrary interference with defendants' liberty and property rights, and as a denial of the equal protection of the laws, instead of its validity as held by the state courts.

We think the judgment of the supreme court of Wisconsin should be reversed in both cases and the complaints against the defendants dismissed.

H. O. FAIRCHILD,
Attorney for Plaintiffs in Error.

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UNITED STATES OF AMERICA, IN SUPREME COURT.

No. 113.

T. H. GRADY, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

No. 112.

GEORGE McDERMOTT, PLAINTIFF IN ERROR,

vs.

THE STATE OF WISCONSIN.

REPLY BRIEF FOR PLAINTIFFS IN ERROR.

The court permitting, it is our desire to submit reply to the arguments and authorities cited by counsel for the state. We regard both as misleading, in the absence of thorough consideration. We wish to avoid, as far as possible, repetition of what is contained in our original brief, although to a degree repetition is unavoidable.

I.

The state statute is wholly void because a regulation of interstate commerce after the passage of the Food and Drugs Act of Congress covering the same subject by conflicting regulations; and hence there was no state statute under which either defendant could be charged or convicted.

FIRST. Counsel for the state controvert this proposition, because, as they say, the statute should be held not to include interstate commerce.

(1) But this contention is precluded since the state supreme court expressly construed the statute to cover both interstate and intrastate commerce; and such construction is concededly binding upon this court.

Cases cited in Defendants' Brief, p. 16.

Cases cited in State's Brief, p. 123.

(2) This construction of the statute was contended for by the defendants in the lower courts, and in response to such contention, the supreme court said (*Grady Trans.*, 482) :

"The defendants assail the validity of *this legislation* (state statute) upon several grounds. It is asserted that the act is invalid because the provisions are violative of the commerce clause of the federal constitution, *in that it attempts to regulate interstate commerce in an article of food, and that congress has heretofore exercised its power by enacting specific regulations on the subject.*" (Italics ours.)

It thus appears that a construction of the statute, as *including interstate commerce*, was directly invoked from the court by defendants' claim. Does the court deny that the statute is to be construed as defendants claimed, or assert that it regulates only intrastate commerce, as is now claimed by the state? The court asserts directly the contrary. Continuing the paragraph just quoted from, the court said :

"The legislation, *so far as it may be said to affect interstate commerce, falls within what has been termed the field of 'concurrent jurisdiction' of the state and federal governments*, and wherein the state may enact appropriate regulations provided they do not conflict with congressional regulation on the subject. *Brown vs. Houston*, 114 U. S. 622 * * * ; *State vs. Railway Company*, 136 Wis. 407 * * * ." (Italics ours.)

(3) What is the field of "concurrent jurisdiction" within which it is asserted this legislation falls, except the field of interstate commerce? Certainly the federal government has no jurisdiction over the field of intrastate commerce; and hence the "concurrent jurisdiction" referred to by the court can not embrace that field. The cases cited by the court leave no doubt of its meaning, if it could otherwise be in doubt.

Brown vs. Houston asserts the doctrine, so often repeated by this court elsewhere, that the state may, in many respects, regulate interstate commerce, so long as the same subject is not covered by congressional legislation. This is the field of "concurrent jurisdiction" expressly referred to by the state court.

State vs. Railway Co., also cited by the court, makes equally clear what is meant by the "concurrent jurisdiction" of the state and federal government. In that case the court held invalid a state statute regulating the hours of employment of telegraph operators in both interstate and intrastate commerce, because of the federal act covering the same field of interstate commerce.

At page 412 of that case the Wisconsin court, referring to this field of "concurrent jurisdiction," said:

"The second (class of legislative acts) includes cases of what may be termed 'concurrent jurisdiction,' where the states may act in the absence of congressional action. *Obviously this field must be one where congress has right and power to act*, if it sees fit, but where some restraint and regulation is necessary, and the authority therefor is deemed to be conceded to the states pending nonaction by congress."

The attempt of counsel to make of the instant case one in which the state statute must be confined to intrastate commerce must fail, and these cases be determined upon the assumption that the state statute is a regulation of both interstate and intrastate commerce, as the Wisconsin court held it to be.

Conflict Between the State and Federal Acts.

SECOND. So viewing the state statute, it will be noted at the outset that the Food and Drugs Act of congress designates as well what will not be deemed a misbranding of articles of food as what will be a misbranding.

(1) Sec. 8 declares "that an article of food which does not contain any added poisonous or deleterious ingredients, *shall not be deemed* to be adulterated or misbranded in the following cases:

"First. In the case of *mixtures or compounds* which may be *now* or from time to time hereafter known as articles of food, *under their own distinctive names*, and not an imitation of or offered for sale under the distinctive name of another article, if the same be accompanied on the same label or brand with a statement of the place where said article has been manufactured or purchased."

The act sets up certain tests by which the fact is to be determined what is and what is not a truthful branding. One of these tests is set out in this clause of Sec. 8.

If when the federal act was passed the articles of food sold by the defendants were then known "under their own distinctive names," and compliance was had with the other prescribed conditions of this clause of the act—as they were in these cases (Grady Trans., 720, 722)—no state statute regulating interstate commerce, as this does, could prohibit the use of such distinctive names on the label without conflicting with the federal act, and, to that extent at least, covering the subject of

the federal act. The federal act in such case would be permissive of such use of the name, while the state act would be prohibitive of its use.

Distinctive Name Prescribed by Wisconsin Act of 1905.

(2) When the federal act was passed, the state statute of 1905, heretofore referred to, in express terms required the defendants' articles to be called on the label, by the distinctive name of "Glucose Mixture" or "Corn Syrup" (Defendants' Brief, 10); and the state food and dairy commissioner, prior to the passage of the federal act, had approved the very labels here used by the defendants as in accordance with the act of 1905 (Grady Trans., 302-305). The defendants' articles, in interstate commerce, were, therefore, within the federal act, then "known as articles of food under their own distinctive name"—"corn syrup."

Surely a name that is required by law, and is being used by the sanction of the state officials charged with the administration of that law, as in compliance with it, is a "distinctive name."

In *Two Hundred Chests of Tea*, 9 Wheat. 430, 439, the question considered was whether a certain tea was subject to the customs duties as "bohea tea." The court in declaring it so, said:

"Bohea tea, then, in the sense of all our revenue laws, means that article which, in the known usage of trade, has acquired that *distinctive appellation*."

If "bohea tea" is a distinctive name, because it has acquired such name by custom, with how much more propriety may "corn syrup" be considered a "distinctive name" when established by the written law, as well as long usage in trade?

The right to use in interstate commerce the distinctive name of the article by which it was known when the Food and Drugs Act was passed was, therefore, *secured to the defendants by that act*, but is denied to them by the state statute in question. This certainly establishes a direct conflict between the two acts, as to the particular subject—the name of the article which may be used on labels in interstate commerce.

(3) But the decision of the three secretaries (Grady Trans. 85) signifies another conflict between the federal and state statute, and shows that the two acts cover the same subject in the particular involved in these cases.

The secretaries declared the name of the article used by the defendant Grady a truthful name, and that the article so branded "is not misbranded" under the federal act. It is here contended by the state that the state statute denounces and punishes the use of the very name which, according to the three secretaries, the federal act authorizes. Does not this bring the two acts in direct conflict, in respect to this particular subject—the truthful name of the article?

(4) According to the practice and rulings of the Bureau of Chemistry of the Department of Agriculture, which is specially charged, in the first instance, with the duty of determining when articles of food are misbranded in interstate commerce, under the Food and Drugs Act (Sec. 4) *the distinctive name used on the defendants' labels is the true name.*

United States vs. 779 Cases of Molasses (C. C. A),
174 Fed. 325, 328.

United States vs. Roekmann, 176 Fed. 382.

Under the state statute in question the name is unlawful. Does this not bring the two acts in direct conflict as to the particular subject?

(5) But in a still broader sense, is there conflict between the two acts. Determining what is a misbranding necessarily involves ascertaining what is a true branding, *as matter of fact*, according to federal tests and practice.

(a) The federal act twice declares, in similar language (Sec. 8), that an article of food is *misbranded*,

"the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein, *which shall be false or misleading in any particular.*"

Of course, the *label name* of the article or of an ingredient, if false or misleading, violates the act.

(b) *Judicial ascertainment of true name as against arbitrary legislative designation of a name whether true or false in fact.*

The federal act points out the method, and the only method, by which the falsity, or misleading character, of the statements on a package or label may be authoritatively established—that is, by a criminal proceeding against the person violating the statute, or a proceeding in the nature of a libel for condemnation or confiscation of the misbranded article itself. In both of these proceedings the defendant is entitled to a trial

by jury upon the question of fact involved, and the burden of proof of that fact—the falsity or misleading character of the label—is upon the government.

United States vs. Six Hundred and Fifty Cases of Tomato Catsup, 166 Fed. 773.

In re Wilson, 168 Fed. 566.

Thus it appears that what is or what is not a false or misleading brand or label, as to the name of the article, or its ingredients, is a question of fact to be determined in a judicial proceeding, in which is involved an inquiry into the true name of the article. This fact may not be established by a state statute, passed after the federal act, declaring what is or what is not the true name, or that any particular name shall be used, because such statutory name may be false or misleading, or not a distinctive name, by which the article has been previously known, within the meaning of Sec. 8 of the federal act. Such a state statute would have no force whatever in a federal court, in either of the proceedings named, to establish the true name of the article or the false or misleading character of the name involved in the proceeding.

The object of the state statute is the arbitrary legislative determination of a particular name asserted to be the true name of the article and of the principal ingredient or substance contained therein, and a prohibition of the use of any other name, while the object of the federal act is the insistence that no name except the true name shall be used, designating the tests for determining what is the true name and prescribing of a judicial method by which the true name shall be determined. The federal act therefore covers the whole field of the state statute, in so far as that field is involved in these prosecutions.

THIRD. Setting at naught all considerations pointing to a conflict between the federal and state statutes, counsel for the state assert there is no conflict because the statutes cover “wholly separate and distinct fields”—in that the federal statute covers interstate commerce and the state statute intrastate commerce only.

(1) It already appears that the state statute must be treated in this court, as a regulation of both interstate and intrastate commerce, and hence the claim of counsel that there is no conflict, because of an opposite contention, must fail.

This contention does not meet the point, but merely seeks to divert attention from it. It is not contended by counsel that if the state statute includes interstate commerce, as held by

the state supreme court, it is not in conflict with the federal statute, but only that it shall be so construed as not to include interstate commerce; and so construed, there is no conflict.

We expressly call attention of the court to our argument and citation of authorities, as to the conflict between the two statutes in Defendants' Brief, at pages 29-31.

State's claim that State Statute may be sustained as to intrastate commerce is unsound.

(2) Counsel for the state assert that even if the state statute includes interstate commerce it is invalid *only to that extent*, and may be sustained as to intrastate commerce, which it is insisted the defendants' acts were. We insist this claim is not sound.

(a) Counsel cite a flood of cases—many of them from Wisconsin—to the effect that where the invalid portion of a statute is *separable* from the valid portion and the former is not the moving consideration for the latter, the latter may be sustained and enforced. This is not denied. The cases cited by counsel to sustain their claim are not cases where the court has held the two parts of a statute *inseparable*. In that event, the authorities in this court, as elsewhere, including Wisconsin, are to the effect that the valid part of the statute must fall with the invalid part. Many cases to this effect are cited in Defendants' Brief, pp. 16 and 17, and especially to the point when a statute will be regarded as inseparable.

(b) This is not a question of construction, into which channel counsel seek by their argument and citation of authorities to turn it, *but is one of an attempted separation of an inseparable statute.*

The true rule as to when a statute is inseparable is thus stated in a case cited in our original brief.

United States vs. Ju Toy, 198 U. S. 253, 262.

"But the relevant portion (of the statute) being a single section, *accomplishing all its results by the same general words, must be valid as to all that it embraces or altogether void. An exception of a class constitutionally exempted can not be read into those general words merely for the purpose of saving what remains.* That has been decided over and over again (Citations). It necessarily follows that when such words are sustained they are sustained to their full extent." (Italics ours.)

United States vs. Harris, 106 U. S. 629.

United States vs. Reese, 92 U. S. 214.

Baldwin vs. Franks, 120 U. S. 678.

Cella Commission Co. vs. Bohlinger (C. C. A.), 147-Fed. 419, 423.

C. M. & St. Paul R. Co. vs. Westby (C. C. A.), 178 Fed. 619, 632.

Virginia Coupon Cases, 114 U. S. 270.

Sprague vs. Thompson, 118 U. S. 90, 94.

Pollock vs. Farmers Loan & Trust Co., 158 U. S. 601, 636.

Haskell vs. Kansas Natural Gas Co., 224 U. S. 217, 222.

In *Baldwin vs. Franks*, *supra*, the court meets and thus disposes of a claim similar to the one made here:

"In support of this argument reliance is had on the well settled rule that a statute may be in part constitutional and in part unconstitutional, and that under some circumstances the part which is constitutional will be enforced and only that which is unconstitutional rejected. To give effect to this rule, however, *the parts*—that is that which is constitutional and that which is unconstitutional—*must be capable of separation, so that each may be read by itself*. This statute considered as a statute, punishing conspiracies in the state, is not of that character, *for in that connection it has no parts within the meaning of the rule* * * *. It provides in general terms for the punishment of *all* who conspire for the purpose of depriving any person, or any class of persons, of the equal protection of the laws, or of equal privileges or immunities under the laws. *A single provision, which makes up the latter clause, embraces those who conspire against citizens as well as those who conspire against aliens—those who conspire to deprive one of his rights under the laws of a state and those who conspire to deprive him of his rights under the constitution, laws or treaties of the United States. The limitation which is sought must be made, if at all, by construction, not by separation. This, it has often been decided, is not enough.*" (Italics ours.)

In referring to *United States vs. Reese*, the court in *Baldwin vs. Franks* further said:

"An attempt was made there, as here, *to limit the statute by construction*, so as to make it operate only on that which congress might rightfully prohibit and punish; but to this the court said, p. 221: 'For this purpose we must take these sections of the statute as they are. *We are not*

able to reject a part which is unconstitutional and retain the remainder, because it is not possible to separate that which is unconstitutional, if there be any such, from that which is not. * * * * *

The question then to be determined is whether we can introduce words of limitation into a penal statute so as to make it specific, when as expressed it is general only.' This was answered in the negative, the court remarking: '*To limit the statute in the manner now asked for would be to make a new law, not to enforce an old one.*'" (Italics ours.)

For this court to say in these cases that it will except from the general words of the statute the part which is a regulation of interstate commerce, *when the state supreme court has declared that such regulation is there*, would be to make a new statute, not to enforce an old one—something which may not be done. When the statute is, as in these cases, made up of one clause accomplishing all its results by the same general words, there are no parts; but only one indivisible whole, incapable of separation. In that case the statute must, as said in *United States vs. Ju Toy*, supra, "*be valid as to all that it embraces or altogether void.*"

To the same effect is *Employers Liability Cases*, 207 U. S. 463, 501, where the court said in response to a claim similar to the one here made,

"The principles of construction invoked are undoubted, *but are inapplicable*. Of course, if it can be lawfully done, our duty is to construe the statute so as to render it constitutional. *But this does not imply, if the text of an act is unambiguous, that it may be rewritten to accomplish that purpose*. Equally clear is it, generally speaking, that where a statute contains provisions which are constitutional and others which are not, effect may be given to the legal provisions by separating them from the illegal. *But this applies only to a case where the provisions are separable and not dependent one upon the other, and does not support the contention that that which is indivisible may be divided*. Moreover, even in a case where legal provisions may be severed from those which are illegal in order to save, the rule applies only where it is plain that congress would have enacted the legislation with the unconstitutional provisions eliminated. All these principles are so clearly settled as not to be open to controversy." (Italics ours.)

In *Illinois Central R. Co. vs. McKendree*, 203 U. S. 514, 529,

where was involved the validity of an order of the Secretary of Agriculture that made certain quarantine regulations which were deemed to include both interstate and intrastate commerce, Mr. Justice Day, speaking for the court, said:

"Nor have we the power to so limit the secretary's order as to make it apply only to interstate commerce, which, it is urged, is all that his authority involved. For aught that appears upon the face of the order the secretary intended it to apply to all commerce, and whether he would have made such an order, if strictly limited to interstate commerce, we have no means of knowing. The order is in terms single and indivisible."

The Wisconsin court, in *State vs. Railway Co.*, 136 Wis. 407, in every respect affirms the rule laid down in the federal cases, particularly citing and approving *Employers Liability Cases*. The court, after referring to that case, said at page 418:

"The legislature has in terms undertaken to restrict hours of work of employees engaged in safeguarding and conducting interstate commerce, as well as domestic, and, controlled as we must be by the decision of the federal supreme court, we can not import a meaning contradictory of the express words. Neither can we feel any certainty that the generality of the restriction was not an essential element in the entire legislative scheme, so that we might believe the legislature would have imposed upon domestic commerce, or on employees exclusively engaged therein, burdens not also resting on entirely similar acts of employees involving interstate trains or commerce."

Not only is it not permissible to divide a statute, when its general words embrace its entire scope, so as to separate the valid from the invalid parts, but there is no more reason for saying in these cases, than in any of those already considered, that the legislature would have passed such a statute restricted only to intrastate commerce. The legislature evidently thought it might include both interstate and intrastate commerce in its regulations, otherwise it would not have done so; and, as the Wisconsin court said, in the case last referred to, it is impossible for the court to say *"that the generality of the restriction was not an essential element in the entire legislative scheme."*

FOURTH. But counsel for the state say that even conceding the statute invalid for its inclusion of interstate commerce, the defendants can not be heard to insist upon such invalidity because they are not harmed thereby, since their sales were acts of intrastate commerce.

It seems to us there are at least three complete answers to this contention, as we set out in our original brief.

(1) The rule invoked by counsel does not apply to a legislative act that is wholly void, since such an act has no validity or effect to any extent or for any purpose. It is "as inoperative as though it had never been passed."

Citations in Defendants' Brief, pp. 32-34.

(2) This is a penal statute, and the defendants are being prosecuted under it, and are vitally interested in the question whether there is any law under which they may be convicted and punished—whether the invalidities in the statute render it void as an entirety; because if they do, as was said by the court in

Norton vs. Shelby Co., 118 U. S. 425, 442,

"An unconstitutional act is not a law; it confers no rights; imposes no duties; it affords no protection; * * * it is in legal contemplation as inoperative as though it had never been passed."

(3) The sale of a single can of syrup, after its removal from the wooden box in which it was imported, is within the regulations of the Food and Drugs Act, as to labeling, and not a subject for state regulation.

This fact would render the state statute inoperative irrespective of the question whether it includes a regulation of both interstate and intrastate commerce. The Federal Act in that event would be the supreme law, regulating the sale.

We call attention to our consideration of these same points in our original brief, pp. 34-42.

(a) **Protection of Consumer purpose of Federal Act.**

That the protection of the consumer against deception, "regarding foods and drugs and the ingredients or substances contained therein," from false or misleading statements upon packages or labels, is the purpose of the federal act seems unquestioned. That it was the intention of congress also to make such protection as complete as possible within its powers seems equally certain, when the history of the act, the evils to be corrected, and its broad and comprehensive terms and careful regulations are considered. So it is equally certain that such protection will utterly fail, unless the unit package of sale—the can in these cases—can be treated as the package that bears the label which will inform the consumer of what he is buying.

We demonstrated, as we thought, in our original brief,

pages 27-28, 34-42, that unless the act will bear a construction that will bring directly to the notice of the consumer, *by the statements on the label*, the information which the act clearly contemplates he is to receive for his protection, the act will be emasculated and its efficiency for the chief, if not the only purpose of its enactment, utterly destroyed.

It is equally clear that any construction of the act which will require, in cases like those in hand and hundreds of others that might be named, that the label be put upon the larger container—*which never comes to the notice of the consumer*—instead of on the unit package or packages therein enclosed, will utterly fail to bring to the consumer the information which he requires and which it was the purpose of the act he should receive.

Defendants' Brief, pp. 27-28, 39-40.

(b) **State insists that the Federal Act regulates the branding of the wooden box containing the unit packages and not the latter packages. This we deny.**

It is said by counsel for the state that sections 2 and 10 of the act prohibit sales of adulterated or misbranded articles in the states only when made in the "original unbroken packages," while in the territories and District of Columbia all sales of contraband articles, no matter how made, are prohibited. It is then concluded that the "original unbroken packages" of the act are the larger containing packages and not *also or only* the unit packages contained therein—that is, that *the labeling of the wooden box*, in such a case as this, is the sole subject of regulation, and hence the act does not attempt regulation of the branding or labeling of the individual cans after removal from the wooden box for sale by the importer in the ordinary course of business.

UNIT PACKAGE AN ORIGINAL PACKAGE UNDER FEDERAL ACT.

Our contention is that the label on the unit can (in these cases) whether in or after removal from the wooden box in which it was imported, is a subject of regulation by the federal act, when the article is held for sale or being sold by the importer to the consumer, in such unit can.

Section 2 first prohibits the introduction into the territories and District of Columbia, as well as into the states, of any *misbranded* articles of food. The section, then, among other provisions, declares that any person who having "received

(into any state, territory or the District of Columbia) shall deliver, *in original unbroken packages*, for pay or otherwise, or offer to deliver to any other person, any such article so * * misbranded within the meaning of this act, *or any person who shall sell or offer for sale in the District of Columbia or the territories of the United States any such * * misbranded foods, etc.*, shall be guilty of a misdemeanor."

It will be noted that sales in the territories and District of Columbia, as well as in the states, "*in the original unbroken packages*" are here prohibited.

(d) Section 10 in part reads:

"Any article of food * * * that is * * misbranded within the meaning of this act, and is being transported from one state, territory, district or insular possession to another, for sale, or having been transported, remains unloaded, unsold or in original unbroken packages, *or if it be sold or offered for sale in the District of Columbia or the territories* * * * or if it be imported from a foreign country for sale * * * shall be liable to be proceeded against * * * and seized for confiscation."

The fact that sales of *misbranded* articles of food are prohibited in the territories and in the District of Columbia, whether in the packages designated in the Act as "*the original unbroken packages*" or not, is by no means decisive of the question whether the Food and Drugs Act is intended to regulate *the labeling of the unit package until it is sold by the importer*; nor is it conclusive of the question whether "*the original unbroken package*" of the act may not, in a case like those in hand, be the unit package itself.

Of course the act recognizes the plenary legislative power of congress over sales in the territories and District of Columbia, and where dealing with sales therein there was no occasion to say anything about packages *other than is provided in Sec. 8*, which declares when an article of food or drugs shall be deemed misbranded and when deemed truthfully branded.

If the article is in "*package form*," as here, the thing misbranded will necessarily be the package, whether the sale is in a state or territory. The act deals very largely in its terms with "*packages*," because such is the customary form in which sales are now everywhere made. So whether the sale is made in the states or in the territories or District of Columbia, *when in package form*, the act deals with them throughout *in the same terms*.

It will be noted also that the words of Secs. 2 and 10 are "*original unbroken packages*," not package. In the usual ex-

pression of the original package rule the singular of the word package is used. The use of the plural here seems to recognize the fact that such foods and drugs as the act deals with are in "*package form*" usually, and that these are the original packages which are to remain unbroken. This may be of no special significance except to indicate the care with which the act is prepared to express the thought we contend for.

(c) In order to arrive at a correct construction of the provisions of Secs. 2 and 10, the act must be examined as a whole and *in the light of its known purposes*.

Compare the provisions of sections 2 and 10 with those of Sec. 8, where the word "package" is used many times, *as descriptive of the container of the misbranded article*, or the article which is not deemed to be misbranded. There is no misbranding in the states that is not equally a misbranding, under the statute, in the territories and District of Columbia. Sec. 8 applies as well to the territories and District of Columbia as to the states. The *same* "package," under the provisions of Sec. 8 is presumed to bear the label in the territories and District of Columbia as in the states. There is no express provision in the act for *double* branding—one on the units contained in the larger case or container and one on the larger case or container also. If such provision exists it must be implied solely because of the purposes of the act. Except as a food product may be sold in cases to wholesalers or retailers, the case would never be, under the provisions of Sec. 8, the "package" in which "it (the article) is offered for sale." But, however that may be, there is no "misbranding" under the act except that defined in Sec. 8, and the "*package*" there referred to is the unit container—where there is a larger container inclosing units, and the sale is of the unit at retail by the importer. Where there is but one container like a barrel or box, that, of course, is the package that must bear the label under the provisions of Sec. 8.

Take the fourth subdivision of Sec. 8, where it is declared

"That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

* * * * *

Second. In the case of articles labeled, branded or tagged so as to plainly indicate that they are compounds, imitations or blends, and the word 'compound,' 'imitation' or 'blend,' as the case may be, is plainly stated *on the package in which it is offered for sale.*"

The package here referred to must surely be or *include* the unit package of sale at retail, and not alone the containing package of the importation. This language must be construed to cover *any and all* packages in which the article "is offered for sale."

Take also the third subdivision of Sec. 8, where it is provided that an article shall be deemed misbranded.

"Third: If in *package form* and the *contents* are stated in terms of weight or measure, they are not plainly and correctly stated *on the outside of the package.*"

This of course means "on the outside of the (unit) package" in which the article is contained when "offered for sale" to the consumer at retail. The contents there referred to must be of the unit package which bears the statement of the weight or measure.

So also the language of Sub. Four of Sec. 8 indicates the same meaning. "If the *package containing it* (the food article) or *its label* shall bear any statement, design or device regarding the ingredients *or the substances contained therein*, which statement, design or device shall be false or misleading in any particular," it shall be deemed misbranded.

It is "the package containing" the article and not the container of *many* unit packages, each one of which contains the article, that is misbranded in such a case. It will be noted that it is "the package containing" the article "or *its label*" that is to bear the statement, etc., which constitutes the misbranding. It is not a label on a package which does not itself contain the article that is here referred to.

The syrups in question are put up "*in package form*"—cans—and the contents in terms of weight are "plainly and correctly stated on the outside of the package"—that is, the can. The article is "offered for sale" to the consumer exclusively in this package. No consumer buys syrup by the box—12 half gallon cans—but only by the single can or maybe two cans. The statute certainly does not contemplate that the consumer will *always*, if ever, buy in any such large quantities as by the box. Is not this "package form" of subdivision 3, Sec. 8, the can in which the defendants' syrup is in fact "*originally put up*" for sale to the consumer as stated in the second subdivision of section 8? Is not the "package containing" the syrup also the can referred to in sub. 4 and not the box which contains 12 cans? That is the package which always bears the label and which must go to the consumer with the false or misleading "statement, design or device," if any, and not the box.

Is not the "package form" in which the statute contemplates it is to be offered for sale to the consumer, and which bears the

label, also the packages defined as the original unbroken packages" of sections 2 and 10 of the statute? It may be conceded that these words have a somewhat technical meaning, but they do not seem to have such meaning in this act, when its conceded purposes and all its provisions are considered. In the Kentucky cases cited in our original brief, p. 29, they were given a different meaning, and such as we are here contending for.

Kentucky Board of Pharmacy vs. Cassidy, 74 S. W. 730, 732.

If the purposes of the act will not otherwise be effectuated, but almost if not wholly defeated, such a construction might very well be given to those words. If not to be construed as suggested, then the "original unbroken packages" of these sections will bear no label, because there is no provision of the statute aside from section 8 requiring such label.

Is not the "package (the can) in which it (the article) is offered (to the consumer) for sale," and which, as shown by subdivision 4 of the section is to bear the label, "the original unbroken packages" of sections 2 and 10 of the statute? If not then such "original unbroken packages" will bear no label, because there is no provision for any such label aside from those of section 8.

So, too, if the package as "*originally put up*" for sale to the consumer, referred to in the second subdivision of section 8, and which the act clearly contemplates is to bear the label; or "the package containing" the article which must speak only the truth by its label, is not the same as the "original unbroken packages" of sections 2 and 10, where is the provision of the statute requiring any label on the "original unbroken packages" of these sections?

The fact can not be ignored that there are *two* packages in such case, and that of the two the unit package is the one to reach the consumer whose protection is the object of the act. The act must therefore, *by some of its terms*, be held to regulate the branding and the misbranding of such unit packages, otherwise the consumer fails of protection. The terms of Sec. 8 all seem to relate to the unit package. Of course where there is but one package, whether large or small, that becomes the unit package within the meaning of Sec. 8.

(f) It would seem that sections 2 and 10 contain the general prohibitions of the act against sales of misbranded drugs and foods, and the words "original unbroken packages" are used, not to define something else than the "package," so often referred to in section 8, which must bear the label, for the information of the consumer, but to indicate by one *descriptive word* or

a combination of words any and all kind or kinds, form or forms of package containing the article, which may be "misbranded" within the meaning of the act.

(g) Take the second subdivision of section 8 as applied to drugs. There is misbranding "*If the contents of the package as originally put up, shall have been removed, or if the package fail to bear a statement on the label of the quantity or proportion of alcohol, morphine, etc.*"

Is not the "original unbroken package" of the act these packages "as originally put up" unbroken?

It is, of course, common knowledge that drugs and medicines are usually "*originally put up*" in bottles or small paper boxes or packages (see first sub. Sec. 7), and come to the importer enclosed in wooden boxes or barrels containing many such different packages, in some instances of different kinds of drugs or medicines. Does this clause of the act mean that the wooden box or barrel, in such a case, is to bear the label instead of the bottle or paper box or package which directly contains the drugs or medicines, *and which usually comes to the consumer?* If such is the meaning an exporter of a wooden box containing a dozen or more different kinds of drugs or medicines, who, having once packed the box or barrel, takes from it a small unit package and puts another in its place, has violated the statute. *It is certain that this clause will bear no such construction.* It is plainly intended as a prohibition against taking out of a unit package part of its contents and putting into *such* package, in mixture with its remaining contents, some other drug or medicine. So construed, of course the package that will be misbranded in such case will be the bottle or other small unit package and not the wooden box or barrel containing many units of different kinds.

(h) **Any other construction would seriously interfere with reasonable and customary methods of business, which could not have been the intention of Congress.**

As stated in Defendants' Brief, pages 40-41, any other construction of the act than that contended for would not only emasculate and destroy its operation for the only purpose intended, but would be such a radical and unreasonable interference with legitimate and customary methods of business which have long and universally prevailed that it can not be inferred for a moment that congress had any such intention in passing the act.

It is common knowledge that wholesale druggists and grocers everywhere have their regular broken package departments in which many unit packages containing drugs, medicines or food

products, confectionery and condiments—each requiring and customarily bearing its own proper label—are assembled into one large case or carton for shipment. Is this large case or carton the "original package" or the package that is *alone* to bear the label under section 8 of the act, or are the separate unit packages contained therein also or alone to bear the label? If the former, then the case must bear five, ten or twenty different labels, representing as many different articles as it contains, otherwise the shipment may not be made in that form and there is no prohibition of such form of shipment. Such a construction would reach the absurd.

The Food and Drugs Act is a practical statute, *dealing with an immense traffic*, and is supposed to disturb reasonable customary business methods only to the extent necessary to fully accomplish the purposes of the act; and that, in the respect we are considering, is fully accomplished by having the individual containers or units branded or labeled as section 8 requires, in order that they be not misbranded or that they be lawfully branded.

(i) **The construction contended for by the State would result in a most unreasonable, if not absurd, interference with interstate commerce.**

The unit containers—which must of course bear truthful labels under the federal act—although properly and lawfully labeled in accordance with that act when they enter interstate commerce for shipment, may not be sold by the importer as units—the package form in which the manufacturer intended the sale to be made and the importer intended to make the sale when he made the importation, and also in which the trade demands he shall sell the article—*until the truthful label of the federal act is removed and a wholly different label, in accord with the state statute, is put on in its place*. If this be the law, how absurd its operation and what a useless expense to manufacturer and importer was the labeling under the federal act? How futile for the federal act to make such elaborate, or any, provisions requiring a truthful label and designating what is and what is not such, to be put on the units before shipping a subject of interstate commerce, *only to be stripped off* from them under state regulation, before those same units can be sold by the importer to the consumer—*which was the sole purpose of the importations*.

The federal act must have a broader, more reasonable and business-like construction than that contended for by the state.

(j) **Label authorized by Federal Act must remain on unit package until sold by importer, notwithstanding state regulations to the contrary.**

If it was the purpose of the federal act—as must be conceded—that the units of importation in such a case as this bear a label even though the container of such units also bear a label, in order that the consumer who is buying them may be protected against falsehood and deception, is it not apparent that congress meant that such label, in order that it serve its purpose, *remain on the container until sale by the importer?* We insist it is most apparent.

(1) What federal purpose does the label on the unit containers subserve if a sale by the importer to the consumer under that label is not an act of interstate commerce? If he will never see such label, in case it be displaced by another and different label under state law before the unit reaches him, it is a senseless enactment to require or make regulations for a truthful label on the unit container in the first instance. It will serve no purpose either to the importing wholesaler or the importing retailer, because the former would see only the label or *many* labels on the case containing the units, and it would be a crime against the state statute for the importer to sell the units with such authorized federal label on it.

(2) The fact that the federal act prescribes the kind of a label that may be lawfully put on the units, and also declares what kinds of labels shall constitute misbranding—all for the protection of the consumer—indicates that it is the purpose of the act that when a label that is in conformity with the federal act has once been placed on the unit package and such package is introduced into interstate commerce, it shall remain on the unit until it has served its purpose there, so far as the powers of congress will permit such purpose to be effectuated thereby.

(3) **It is the evident intent of the Food and Drugs Act that a label such as that act authorizes, and which the container of an article of food bears when it enters interstate commerce, shall remain on such container until it is sold by the importer in such container.**

United States vs. Sixty-Five Casks Liquid Extract,
170 Fed. 449.

United States vs. Green, 137 Fed. 179.

The Green case is most significant in its bearing upon the proper construction of the Food and Drugs Act in the particular we are now discussing. The defendant in that case was charged with removing the inspection stamp from a package of reno-

vated butter which had been shipped from one state to another and from there taken by the importer into a third state, where he removed the stamp and sold the package. The butter had been inspected under an act of congress requiring such inspection *and stamp*, and the same statute prohibited the removal of the stamp under a penalty. The same act, by incorporating therein another act similar in terms to the so-called Wilson Act (26 Stats. 313) relating to intoxicating liquors shipped from one state to another, provided that a package of renovated butter shipped from one state to another or to a territory or the District of Columbia, *shall, upon the arrival within the limits of such state or territory or the District of Columbia, be subject to the operation and effect of the laws of such state or territory or the District of Columbia, enacted in the exercise of police powers, to the same extent and in the manner as though such articles or substances had been produced in such state or territory or the District of Columbia, and shall not be exempt therefrom by reason of being introduced therein in original packages or otherwise.*

The court held the removal of the inspection stamp was punishable as a violation of the federal act. The court used this language, at page 187:

"This court is not prepared to assent to the claim that this section *wholly divests the articles named therein * * of their character as subjects of interstate commerce*, immediately on their arrival in the state other than that of their production, at least to such an extent as to permit the removal of all marks, labels, etc., required by the national law to be affixed when a subject of interstate commerce."

Again the court said, at page 184:

"Is it necessary, proper or advisable that the stamps, marks, labels, etc., upon renovated or process butter, or the packages containing same, shall not be removed, altered or defaced until such article has reached the hands of the consumer? Evidently so. Otherwise at any time after the process or renovated butter has left the factory, on its way to another state or territory, the labels and marks may be removed with impunity; and especially after such renovated butter has reached another state is the person transporting it at liberty to remove all such marks."

Again, at page 189, the court said:

"It is perfectly clear that to permit the removal of the stamps, marks, labels, etc., on packages of a food product of this character, *and specially authorized by law*, while such

article remains an article of interstate commerce, or even thereafter, *when we consider the objects and purposes of the law*, would not only defeat the objects and purposes of the legislative body as to inspection, but opens the door wide to frauds on the revenue. *The placing of the marks, etc., on the packages implies they are to remain there."*

Hipolite Egg Co. vs. United States, 220 U. S. 45, 57, 58.

"What is implied in a statute is as much a part of it as what is expressed."

United States vs. Babbitt, 1 Black. 55, 61.

Wilson Co. vs. Third Nat. Bank, etc., 103 U. S. 750, 778.

Steele vs. Bucl (C. C. A.), 104 Fed. 968, 972.

The Paquete Habana, 175 U. S. 677, 685.

"A thing within the intention of the makers of a statute is as much within the statute as if it were within the letter."

United States vs. Babbitt, *supra*.

Indianapolis, etc., R. Co. vs. Horst, 93 U. S. 291, 300.

Jones vs. N. Y. G. & I. Co., 101 U. S. 622.

(4) When the Food and Drugs Act specifically designates what kind of labeling will be a lawful branding, as in this case (Sec. 8, Fourth sub. paragraph First) and what kind of labeling constitutes a "misbranding," and the federal authorities charged with the administration of the act have declared that a particular label is truthful and lawful and not a misbranding under the statute and may be used on an interstate package, and such a label is put on the unit container of interstate commerce by the manufacturer before transportation. does all this not signify that such label may remain on such unit container *as a lawful label*, until it is sold by the importer to the consumer? It seems to us this must be so, otherwise the act utterly fails to accomplish its purpose, for lack of affirmative provisions essential to its accomplishment.

FIFTH. But counsel for the state, recognizing the force of this claim, insist that so construed the act would be beyond the constitutional power of congress to regulate interstate commerce.

We deny utterly that the power of congress to regulate interstate commerce is so circumscribed as this claim suggests.

(1) Among the cases cited by counsel to support the claim are

Armour & Co. vs. Bird, 123 N. W. 580 (159 Mich. 1).

Savage vs. Scovell, 171 Fed. 566.

The Michigan case is claimed to be decisive. In our view it has no application.

It was contended in that case that complainant's customers might sell at retail, from a large *bulk* container of a mixture of sausage and cereal, small amounts, as by the pound, wrapped in paper packages, *without any label thereon*, although a state statute prohibited the sale of such a mixture unless the package containing it was labeled so as to show among other things the ingredients of the article. The court said (159 Mich. 8):

"The *sole question*, therefore, left to determine, is whether the statute includes sales to consumers, *in small quantities taken from an original package.*"

The court held it did include such sales. There was but one package in that case, containing the entire contents, in bulk, not as here, a large package *containing labeled units*. The only package in that case—*which of necessity was the original package of importation*—had to be broken to make sale of its contents by the pound. The package delivered to the consumer was for that reason within the police power as to branding. It was not covered by the Federal Act in any sense.

Here the labeled units were not broken to make the sale, but were themselves sold unbroken, and as those units bore labels in conformity with the federal act, the sales were an essential part of the importation and not within the police power.

Savage vs. Scovell goes off on a question so far removed from anything involved here that we will not attempt to distinguish it.

That the federal act, construed as we insist it must be construed is within the power of Congress would seem clear from the cases cited in our original brief at pages 36 to 39.

In *Oklahoma vs. Kansas Natural Gas Co.*, 221 U. S. 229, 255, this court said:

"We have said that '*in matters of foreign and interstate commerce there are no state lines.*' In such commerce, instead of the state, a new power appears and a *new welfare*, a welfare which transcends that of any state. But rather let us say it is constituted of the welfare of all of the states * * *. This was the purpose, as it is the result, of the interstate commerce clause of the constitution of the United States." (Italics ours.)

If the ruling of the court in

In re Spickler, 43 Fed. 653, 657,

to which we refer in our original brief, is sound—and the same doctrine has been approved by this court in *In re Rahrer*, 140 U. S. 545, 562—it is the end of the state's contention of lack of power in congress to do what we insist has been done by the Food and Drug Act. It was said there in considering the effect of the Wilson Bill,

"It is apparent to every one that at some time or upon the happening of some event, imported property loses that character and becomes subject to the laws of the state; *it is for congress, which possesses the power to regulate commerce, to define the time or event which shall have the effect of subjecting importations to state control, and this is what is done by the Wilson Bill in regard to intoxicating liquors.*" (Italics ours.)

The holding in that case was based squarely on the rulings in *Brown vs. Maryland*, 12 Wheat. 435, 448 and *In re Rahrer*, supra.

The Rahrer case is also founded on *Brown vs. Maryland*. In the latter case Chief Justice Marshall declared:

"Any charge on the introduction and incorporation of the articles into and with the mass of property in the country, must be hostile to the power given to congress to regulate commerce, since an essential part of that regulation, and principal object of it, *is, to prescribe the regular means for accomplishing that introduction and incorporation.*" (Italics ours.)

We quote from *In re Rahrer* at page 37 of our original brief, and it would seem from these cases that the power of congress, "*to define the time or event which shall have the effect of subjecting importations to state control*" is no longer an open question in this court.

Under such a comprehensive power it certainly can not be doubted, in the light of these decisions, that congress may say, as we insist it has said in the Food and Drugs Act, *that so long as an importation remains in the hands of the importer unsold and in the container in which he, in good faith, received it from another state*—no matter what the form of the container—it shall continue to be in interstate commerce and subject to sale by the importer *in such container*, without interference from the state under its police powers.

Even if it should be admitted—and we readily make the admission—that for many purposes, and even generally, an article of interstate commerce shall be deemed to have become commingled with the mass of the property of the state when it

is removed from the bundle, box or carton in which such article is usually in good faith shipped from manufacturer to wholesaler or wholesaler to retailer, yet that does not conclude the question whether congress may not say, under its power "to make all laws which shall be necessary and proper for carrying into execution" (Art. I, Sec. 8) its power to regulate commerce, provide that, *for the purpose of protecting the consumer from harmful adulterations and deceptive misbranding* of drugs and articles of food, which are subjects of interstate commerce, such commingling with the mass of property of the state shall not be deemed to have taken place, while such drugs or food articles are held for sale or being sold in the unit packages of importation.

That congress has the power, *for the same purpose*, to prescribe the manner in which such articles shall be packed for sale to the consumer, and how such packages shall be labeled as to their contents and ingredients, and that they shall be sold by the importer only in such packages so labeled, would seem beyond doubt under the repeated rulings of this court. The Food and Drugs Act does not go even so far as that.

SIXTH. We do not understand that there is anything in

Austin vs. Tennessee, 179 U. S. 343,

contrary to our contention that the can is *an* original package within the meaning of the Food and Drugs Act.

There was a sharp line of difference between the majority and minority of the court in that case—four judges dissenting. The case went off really on a single point—which is not involved here. The question there was whether each one of many small paper boxes containing ten cigarettes each, shipped loose in a basket from another state, could be treated as original packages for sale by an importer, where all sales of cigarettes were prohibited by the state statute. The shipment in that form was found by the court to be a mere subterfuge to evade the state statute prohibiting all sales, and for that reason the sale was not an act of interstate commerce.

Mr. Justice Brown delivered the majority opinion and Mr. Justice Brewer the minority opinion. In order that there be no mistake as to the exact holding of the majority of the court, the statement by Mr. Justice Brown in

Cook vs. Marshall County, 196 U. S. 261, 269, 270,

as to what was decided in the Austin case is quoted. After referring to a number of cases bearing on the question he said:

"We reviewed these and a large number of other cases in our opinion, and came to the conclusion that these boxes were in no just sense original packages within the spirit of the prior cases, and that their shipment in this form *was not a bona fide transaction, but was merely a convenient subterfuge for evading the law forbidding the sale of cigarettes within the state.*" (Italics ours.)

It was said in majority opinion in *Austin vs. Tennessee*, p. 360:

"Without undertaking to determine what is the proper size of an original package in each case, evidently the doctrine has *no application where the manufacturer puts up the package with the express intent of evading the laws of another state*, and is able to carry out his purpose by the facile agency of an express company and the connivance of his consignee."

It was also said in the majority opinion in *Austin vs. Tennessee*, p. 363:

"Practically the only argument relied upon in support of the theory that these packages of ten cigarettes are original packages is derivable from the revised statutes, Sec. 3392, which requires that manufacturers shall put up all cigarettes made by or for them, and sold, or removed for consumption or use, in packages containing ten, twenty, fifty or one hundred cigarettes each. *This, however, is solely for the purposes of taxation—a precaution taken for the better enforcement of the internal revenue law, and to be read in connection with Sec. 3243, which provides that 'the payment of any tax imposed by the internal revenue laws for carrying on any trade or business shall not be held to exempt any person from any penalty or punishment provided by the laws of any state for carrying on the same within such state, or in any manner to authorize the commencement or continuance of such trade or business contrary to the laws of such state.'* * * * * * The question is not in what packages the law requires the cigarettes to be packed *for the purposes of taxation*, but what are the packages in which they are usually transported from one state to another where the transaction is bona fide and for the legitimate purposes of trade and commerce." (Italics ours.)

The minority opinion by Mr. Justice Brewer met this holding of the majority, in part, by saying, pp. 383-384:

"Congress has prescribed the size of the packages in which cigarettes are to be put up, and while it is true, as

indicated in *Plumley vs. Massachusetts*, 155 U. S. 461, that the primary purpose of such legislation is the collection of internal revenue taxes, *and not the regulation of commerce between the states, yet it is also true that it is not within the power of the states to declare that the use of packages of the size prescribed by congress is illegitimate.* There can not be imputed to congress the purpose to in any way interfere with the full power of the states over matters committed to their care, *nor can the use by an individual of packages such as congress has authorized be considered as an invasion of state laws. The use of such a package, legitimate for one purpose is legitimate for others,* and a state by its statutes can not in any way nullify or weaken the effect of congressional enactments. So, although these packages are small in size they have the approbation of congress and must be considered as legal, and their use can not be made illegal by state laws." (Italics ours.)

Again on page 384, referring to the opinion of Chief Justice Marshall in *Brown vs. Maryland*, 12 Wheat. 419, Mr. Justice Brewer said:

"One will search the opinion of the Chief Justice in vain to ascertain the size or form of the package then before the court. If congress should see fit to describe a form of package, it was within its power. *If it did not do so, it left the matter to the determination of the importer.*"

We have quoted at length from the majority and minority opinions in this case for the purpose of distinguishing that case from this and pointing out the fact that the argument of the two opinions is rather favorable than unfavorable to our contention here.

Can there be any doubt that the decision in the Austin case would have been otherwise had congress prescribed that, *for shipment and sale in interstate commerce*, cigarette packages should contain 10, 20, 50 or 100 cigarettes? The four dissenting judges hold that even though the size of the package was prescribed alone for the purposes of taxation, yet the size of the package was thereby made legitimate for *all* purposes. This seems to be the line of division in the court.

But here we are dealing with an entirely different situation. There is no claim that there is any want of *bona fides* in the transaction—that there is any attempt by any subterfuge to evade the state law. But the question is (1) does the Food and Drugs Act either expressly or impliedly leave to the manufacturer or other exporter between the states the determination of the size of the package or packages in which he will pack his

foods or drugs, for sale to the consumer in interstate commerce, and (2) does the act contemplate that when such package or packages—whatever their size or sizes—are labeled or branded by the manufacturer or exporter, so that it is not a misbranding but a lawful branding, according to the tests of the act, the importer may sell such foods or drugs in the size of package or packages in which they were packed and labeled for sale by him, without interference from state laws.

It is needless to say that the federal act does not prescribe the size of packages in which foods or drugs may be put up for shipment or sale in interstate commerce. It seems to recognize the fact that they may be put up in different sizes and forms. It accepts the customary methods of business as they exist in that respect, leaving that whole matter with the manufacturer or other dealer putting up the article, and then deals with them "for the purposes of the act."

Section 8 of the act, as already stated, speaks of the package "as originally put up," of "the package in which it (the article) is offered for sale," of "the package containing" the article and "its label," and of "the substances contained therein," and of the "package form" in which the article is put up. All these "packages" are those "originally put up" by the manufacturer or other tradesman for export to other states for sale to the consumer, and are the "packages" which the section clearly contemplates shall bear the label.

No restraint is placed on the manufacturer or other exporter putting up the package, as to its form or size, but there is restraint, put upon the kind of label the package shall bear, whatever may be its size or form. The act does not designate the particular label or labels that may be used on the package, but leaves their selection to the manufacturer or exporter putting up the package, but the act does insist that no false or misleading label shall be used and prescribes certain tests by which the fact whether the label is truthful or otherwise—that is, whether it is a misbranding or one permitted by the act—shall be determined.

We insist the act clearly contemplates that when foods or drugs are packed and labeled in conformity with the tests of the act and in that condition are introduced into interstate commerce, they may go to the consumer, *if the importer so wills*, in the same condition as to packing and labeling they were in when they became subjects of interstate commerce, in order that the purposes of the Food and Drugs Act—the protection of the consumer from false or misleading labels or brands—may be effected.

When a food or drug is packed and labeled, in a legitimate way according to the tests of the act, it is prepared for intro-

duction into interstate commerce, within the meaning and for the purposes of the act, and the states may not say that the protection of the consumer will be effectuated by any other or different labeling than that, the tests of which are prescribed by the act, so long as the article remains in interstate commerce. That labeling—*especially when it uses a distinctive name of the article permissible by Sec. 8*—is one which the manufacturer and importer is authorized to use and the states may not deprive him of the right to use it so long as the article remains in interstate commerce, and it must be held, in order to effectuate the purposes of the federal act, to remain in interstate commerce until it is sold by the importer, in the unbroken package which the act recognizes as the package, in which it was "*originally put up*," for sale to the consumer, and which is to bear the label. *This is the unbroken original package of the act.*

SEVENTH. But Congress would have the power if necessary or convenient to accomplish the beneficent purposes of the Food and Drugs Act, even to incidentally regulate intrastate commerce.

United States vs. Colorado, etc., R. Co. (C. C. A.), 157 Fed. 321, 330-331.

Shepard vs. Northern Pac. R. Co., 184 Fed. 765, 795.

EIGHTH. We do not understand that anything said in *Hipolite Egg Co. vs. United States*, 220 U. S. 45, is opposed to our claim that under the federal act a label on the unit package, which is declared by the act not to be a misbranding—as is the case here—and also to be permissible because bearing the "*distinctive name*" of the article known when the federal act was passed, is intended by that act to remain on the package until it reaches the consumer by sale by the importer, free from interference by state regulation under the police power. That case would rather support our claims.

The power of congress over contrabands of interstate commerce, which threaten harm to such commerce or those engaged in it, has its *source and limitations* in the same power of the constitution that enables congress to protect the consumer against threatened harm, from false or misleading brands, by designating what kinds of distinctive labels, on the subjects of such commerce, will afford such protection, and impliedly providing that such labels once attached shall remain on such subjects, until the importation is completed by sale to the consumer by the importer—that is, until the article is no longer a subject of such commerce.

NINTH. The result of this branch of the argument is to establish two propositions:

(1) The state statute is wholly void, because a regulation of interstate commerce after the passage of the Food and Drug Act, covering the same subject by conflicting regulations, and hence there is no state statute under which either defendant could be charged or convicted.

(2) The sales made by the defendants were acts of interstate commerce and therefore within the regulation of the Food and Drugs Act, irrespective of whether the state statute is or is not invalid for the reasons just stated.

II.

The state statute deprives the defendants of their liberty and property without due process of law, and denies to them the equal protection of the law in violation of the Fourteenth Amendment.

(1) We consider at pp. 49-50 of our original brief the proposition that unnecessarily prescribing an obnoxious branding for a wholesome food product—a branding that is prejudicial to its sale—deprives the seller of his liberty and property and is therefore invalid. We refer to the finding of the trial court to the effect that the fact is established *“that the public generally would not purchase the product (sold by the defendants) if it were put out under the name “glucose”;* and that this finding of the trial court was not disturbed by the supreme court. The authorities we cite on page 49 of our brief would seem to leave no doubt as to the soundness of our contention, provided the branding prescribed by the state statute is such as to prejudice the sale of the article—as the lower courts hold it to be—and the label used by the defendants is truthful.

(2) The article sold by the defendants, as already appears, is a compound of two syrups, corn syrup and refiner's syrup in one case, and corn syrup and sugar-cane syrup in the other case. The chief ingredient in both mixtures we contend is a syrup and is properly called “corn syrup.” The state statute is directed against the use of the word “syrup,” not only because it prescribes the name “glucose” instead of “corn syrup” to designate the chief ingredient in the article and a part of the name of the article itself, but expressly prohibits the use of any designation or brand on the label *“that represents or is the name of an article which contains a saccharine substance.”*

We wish to further consider the proposition that *Glucose, so-called, or its synonym, “corn syrup,” is a syrup*

in fact and has always been recognized as such in the literature of the subject and commercially.

FIRST. We submit that extravagance of statements or distortion of the proofs can avail nothing when counsel are dealing with the cold verities of the record. In their zeal to make it appear that calling the food product here involved a syrup is a deception and a fraud on the consumer, counsel in many instances have not only distorted the facts, but further, to emphasize their claims, have intimated perjury on the part of witnesses who are men of high character and eminence throughout the country; and have more than insinuated corruption and stultification on the part of the Secretary of the Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor (State's Brief, 60, 61), in their decision of February 13, 1908, holding the chief ingredient of the Grady article is not only a syrup but is truthfully designated "corn syrup," and when the article is constituted, as it concededly is in this case, it is not misbranded if labeled "corn syrup with cane flavor."

Even the fact that the Corn Products Refining Company seems to be interested in the outcome of the case and is probably aiding in its defense, and that this company has its main office at 26 Broadway, New York City, seems in the mind of counsel to cast a cloud of suspicion on the claim that the chief ingredient of this food product is a syrup and that the article itself is truthfully labeled "corn syrup with cane flavor," as the three secretaries decided (State's Brief, 1-2). The fact that this label is being used throughout the United States and Canada and to some extent in foreign countries by this company, in a business in which many millions of capital is invested and the annual output of which is many millions of dollars, does not seem to suggest to counsel the propriety and legitimacy of the interest which that company may take in the outcome of these cases. But the fact is referred to by counsel only for the purpose of creating if possible a suspicion, even in the mind of this court, as to the honesty and validity of the attack being made on the constitutionality of the state statute under which the defendants are prosecuted, convicted and fined. Counsel surely are driven to great extremities to sustain their contentions.

Evolution of the Corn Syrup Label.

SECOND. A short history of the evolution of names, out of which the "corn syrup" label has been finally evolved, will greatly clarify the situation and dispose of many of counsel's contentions without specifically and separately considering them.

(1) It is nowhere denied by counsel that the name "syrup" has been applied to the article otherwise known as glucose for almost a hundred years—that is almost ever since its discovery in 1811, and is being applied today. In any event the literature of the subject, to which reference was made in our original brief, pp. 59-62, establishes the fact beyond controversy.

(2) Nor is it denied anywhere by counsel—and the evidence in the record is uncontradicted to that effect—that for the past 30 years or more, a mixture of the article, otherwise known as glucose, with a flavoring syrup, was known and sold commercially under the name "corn syrup," and since 1906, under the name "corn syrup with cane flavor."

We do not say that manufacturers and retail dealers in this article have during the past 30 years, at all times or *in every instance*, sold it as corn syrup, but that it has during all of that time been sold *as a syrup*, and been known commercially between manufacturers, wholesalers and retailers as "corn syrup," and has been bought and sold between such dealers largely by the name "corn syrup."

(3) Nor is there any doubt that during most of these 30 years—*until within the last 10 or 12 years*—this mixture has also been designated between such dealers, *to a considerable extent*, by many fancy names like "Silver Drips," "Rock Candy Drips," "Amber Drips," "Honey Drips," "Rock Candy Syrup," "Table Syrup" and many other similar attractive names (Grady Trans., 175). Dealers, before the mixture was first put up in small cans in 1895, would order the article from mixers or manufacturers as corn syrup of such a number—No. 6, No. 19, No. 25, or the like—the number indicating the proportion of the ingredients—and would direct the barrels, half barrels, or jacket cans to be branded with some such fancy names as we have indicated (Grady Trans., 181). Many such orders, given to a particular firm of mixers located in Chicago, are found in the record (Grady Trans., 181, 445-455), a sample of such orders being that of L. T. Pingor & Co. of Danville, Va., dated Jany. 12, 1897, in which that firm ordered of Bradshaw & Waite "40 barrels of No. 19 corn syrup," and ordered the barrels to be branded "Honey Drips," which Mr. Bradshaw, one of the firm, swore was the customary way of ordering the article (Grady Trans., 181).

(4) The proofs also show without contradiction that for many years before any state statutes were passed or standards established by federal authorities covering the subject, consumers knew the article as "corn syrup" and would call for it at grocery stores as "corn syrup" (Grady Trans. 355, 350-351, 407-408), even while the barrels were in many cases being labeled with these fancy names as just indicated.

(5) The article first began to be put up, to a more or less extent, in small cans in 1895, and continued to be for a time sold in that form under the same fancy names as had been used in branding barrels, half barrels and jacket cans.

(6) But in 1900—three years before any statutes on the subject were passed in any of the states, or any so-called federal standards of purity were established—the predecessors of the company known as Corn Products Refining Company, manufacturers of the mixture, with a desire to uniformity and truthfulness of name, began to have printed and to use them on all their cans, *except when fancy names were demanded by dealers*—labels bearing the name “corn syrup” (Grady Trans., 370-371, 165-168, 708, 709-712), with such prefixes as “Kairomel” and “Golden Glory.”

(7) In May, 1903, the Michigan statute (Defts’ Brief, p. 9)—the first statute passed anywhere on the subject—was enacted, requiring the article to be sold as “glucose mixture” or “corn syrup.”

(8) *Immediately*—even before the federal standards were promulgated in November, 1903—the predecessor of the Corn Products Refining Company began to “*preach the gospel of corn syrup*,” and employed N. W. Farr & Co. of Philadelphia, represented by Mr. McKinney, one of defendants’ witnesses, to enter upon an extensive advertising campaign in a host of newspapers, magazines and periodicals of different kinds, both local and national, throughout the United States, particularly in Wisconsin, best calculated to bring information to the public, advertising “Karo Corn Syrup”—the word Karo having been trademarked—and during the years 1903 and 1904 spent upwards of \$500,000 in this work (Grady Trans., 138-142, 337-374).

(9) On November 10, 1903, the Secretary of Agriculture promulgated his first so-called food standards, in which *this same mixture*, as well as the chief ingredient in it, were designated “corn syrup”—this name being used, for the *unmixed* article, as a synonym of glucose.

(10) From the last named date down to June 26, 1906, the Corn Products Refining Company and its predecessors (Grady Trans., 373), and all other *mixers* and manufacturers—*so far as the proofs show to the contrary*—designated the mixture and the chief ingredient in it *in all cases* as “corn syrup,” and sold the article in small cans, barrels, half barrels and jacket cans under “corn syrup labels.”

(11) In May, 1905, two years after the Michigan act to the same effect, Wisconsin passed its first statute (Defts’ Brief, 10) on the subject, requiring the mixed article to be labeled either “glucose mixture” or “corn syrup.”

Decision of Three Secretaries, of Feby. 13, 1908, was not without power.

Since serving and filing Defendants' Reply Brief, counsel for the state have served and filed additional pages (62a-62e) to be inserted in the state's brief.

They assert therein that the decision of the Secretaries of Agriculture, of the Treasury and of Commerce and Labor of February 13, 1908, referred to in the briefs, was without authority of law and, therefore, of no effect. This we deny.

Sec. 4 of the Food and Drugs Act clearly provides that a party whose sample of food has been held, by the Bureau of Chemistry of the Department of Agriculture, to be misbranded, may have a hearing on that question, "under such rules and regulations as may be prescribed" by the three secretaries under the authority of Sec. 3.

It seems to us that Sec. 4 contemplates that hearing shall be before the Secretary of Agriculture, and that the rules and regulations under which the hearing is to be had are to have reference only to the time, place and manner of such hearing, and the rules of procedure therein. The power to make rules and regulations for carrying into effect the provisions of the act does not include power to take from the Secretary of Agriculture the authority to hear the complaining party under the provisions of Sec. 4.

Regulation 37 of Circular 21, referred to by counsel, provides that "all applications for relief from decisions arising under the execution of the law should be addressed to the Secretary of Agriculture"; and Sec. 4 of the act requires the Secretary of Agriculture to certify the facts found on such hearing to the United States District Attorney, thus clearly contemplating that the Secretary of Agriculture is the official before whom the hearing is to be had.

Regulation 5 of Circular 21, prescribed by the three secretaries, and relied on so much by counsel for the state, provides that the hearing may be "before the Secretary of Agriculture, or such other official connected with the food and drug inspection service *as may be commissioned by him for that purpose.*" Certainly Regulation 5 does not deprive the Secretary of Agriculture of authority to himself conduct the hearing if he wishes to do so in any case; nor does it deprive him of the power to call in such other official connected with the food and drug inspection service, as he may choose, to participate with him in the hearing. Regulation 5 expressly so provides.

Regulation 40 of Circular 21 also provides:

"These regulations may be altered or amended at any

time without previous notice, with the concurrence of the Secretary of the Treasury and the Secretary of Agriculture and the Secretary of Commerce and Labor."

The Secretary of Agriculture is the administrative officer of the department which is expressly charged by the act with the execution of the law, and the act, as well as the rules and regulations prescribed by the three secretaries, should receive a liberal construction to effectuate this purpose of the act. The Secretary of Agriculture may himself wish to conduct the hearing, in which case he may conduct it alone; or he may wish to participate in the hearing and decision, *as he evidently did in this case*, and yet feel that he may be materially aided in arriving at a correct decision by calling in some other official or officials connected with the food and drug inspection service," *as he did in this case*. Acting on this thought, he no doubt called in the Secretary of the Treasury and the Secretary of Commerce and Labor to participate with him in the hearing and decision of the questions involved in the decision of February 13, 1908. Certainly it will not be denied that the other two secretaries are officials "*connected with the food and drug inspection service*," as they are two of the officials who make all the rules and regulations for the government of such inspection service.

But whether the Secretary of Agriculture had power to call in the other two secretaries or not, the fact that he did call them in, or that they participated in the decision would not vitiate the decision actually made by the Secretary of Agriculture. The decision of February 13, 1908, expressly declares that "*each*" of the secretaries gave careful consideration to the questions involved, and the fact that all participated in the decision did not work any harm to the decision reached by the Secretary of Agriculture as one of the three secretaries making the decision.

But, assuming that the power of the three secretaries under Sec. 3 extended to the designating of the official or officials before whom the hearing might be had, the three secretaries, under Regulation 40, could, without notice, alter Regulation 5 so as to authorize the hearing to be held before *themselves*, instead of before the Secretary of Agriculture alone, or before any other official or officials, if any, who may have *theretofore* been commissioned by him to hold such hearings. Certainly the three secretaries did not exhaust their power to prescribe the official or officials before whom hearings might be had, by

once designating the Board of Food and Drug Inspection to hear such "applications for relief."

But the Board of Food and Drug Inspection, on February 15, 1908, two days after the decision by the three secretaries, *actually issued and caused to be published that decision as "Food Inspection Decision 87"*; and that decision has stood ever since and stands today undisturbed, as having thus received the sanction of the Board of Food and Drug Inspection as well as the three secretaries.

Board of Food and Drug Inspection actually participated in the hearing before the three secretaries.

But the uncontradicted proofs show (Grady Trans., 340-341-342) that all three members of the Board of Food and Drugs Inspection were actually present and participated in the hearing before the three secretaries, and questioned witnesses and filed separate briefs with the three secretaries, setting forth their respective views on the subject involved in the hearing.

The statement of counsel that the Board of Food and Drug Inspection made a decision adverse to the ruling of the three secretaries or that the Secretary of Agriculture approved such decision is not supported by the record, *but just the contrary is shown by the uncontradicted proofs.*

It certainly must be admitted that the authoritative decisions of the Board of Food and Drug Inspection are issued, as such, in printed form and separately numbered and published. And it must also be admitted that no decision by such Board covering the questions involved in the decision of the three secretaries was ever printed, issued or published other than "Food Inspection Decision 87" (Grady Trans., 337, 338, 339).

The only authority for the statement of counsel for the state is a letter of Dr. Wiley, chairman of the board, under date of November 8, 1907 (Grady Trans., 336-337), addressed to the Corn Products Company, of Chicago, Ill., to the effect that the board had come "to the unanimous conclusion that the term 'corn syrup' is not a proper designation to be used with a mixture of glucose and sugar cane products" and that the board was further of the "opinion that the term corn syrup is not a satisfactory synonym for glucose."

This certainly was not an authoritative decision of the board, nor was it ever issued or published as such; but was merely a tentative conclusion reached by the board. In fact, two members of the board, participating in the hearing before

the three secretaries, Mr. McCabe and Dr. Dunlop, there stated (Grady Trans., 341) that "they had not as yet received full information, such information as would enable them to form a definite conclusion," and, therefore, they invited those interested in the hearing to submit briefs "in substantiation" of their claim that corn syrup was a legitimate name for the product.

But even the *conclusion* of the board mentioned in Dr. Wiley's letter, is not to the effect that "corn syrup with *cane flavor*," the designation used in the Grady case, is an improper designation for the mixture, but only that "corn syrup" is an improper designation for such mixture. Nor is it said that corn syrup as a synonym for glucose is false or misleading, or is not a term in common use, and well understood by consumers, but merely that it is "*not satisfactory*." Webster defines "satisfactory" as "answering fully all desires and requirements." A designation might not answer fully *all* desires and requirements and yet be truthful and in common use and well understood by consumers to designate the particular article intended.

Even the conclusion that was said to have been reached by the board was reached, if at all, without considering or even opening or examining the exhibits or briefs submitted by the representatives of the parties interested in the investigation. *This is the uncontradicted proof* (Grady Trans., 337, 341). When these facts were brought to the attention of the Secretary of Agriculture, he ordered a hearing (Grady Trans., 339) which resulted in the decision of February 13, 1908. It would seem, therefore, that there is nothing to impeach the authority or soundness of that decision.

FEDERAL CIRCULAR NO. 19.

The so called standards of purity found in Circular No. 19 are not binding upon the courts, in administering the Food and Drugs Act, as contended by counsel for the state at page 68a, recently added to their brief.

It must be admitted that District Judge Hollister, of the Southern District of Ohio, decided as contended by counsel, in *United States vs. Frank, et al.*, 189 Fed. 195. But it is equally true that District Judge Dyer, of the Eastern District of Missouri, made a contrary ruling in

United States vs. St. Louis Coffee & Spice Mills, 189 Fed. 191.

The case of *Coopersville Co-operative Creamery Co. vs. Lemon*, 163 Fed. 145, cited by Judge Hollister as an authority for his decision in *United States vs. Frank*, is directly to the contrary of

United States vs. 11,150 Pounds of Butter (C. U. A.),
195 Fed. 657,

a decision by the court of appeals of the Eighth Circuit.

We submit it is inconceivable that congress could have intended to write the standards of Circular No. 19 into the Food and Drugs Act, as a conclusive test of the falsity or misleading character of "any statement, design or device" regarding the names of articles of food "or the ingredients or substances contained therein" (Sec. 8), that might be found on packages or labels, *without one word in the act expressive of such intent*. The act leaves the whole question of the falsity or misleading character of any such statement, design or device to the determination of the courts, *as one of fact*, upon proofs to be submitted.

It is nowhere intimated in the act that such *fact* is concluded by the standards of Circular No. 19 or any other particular standards, *but only by the truth as it may be shown to be*.

But we insist that the Appropriation Act of Congress of March 3, 1903 (Ch. 1008. 32 Stats. 1158), under which the standards were prepared, only authorized the Secretary of Agriculture (using the language of the act), "to establish standards of purity for food products, and to determine what are regarded as adulterations therein, *for the guidance of the officials of the various states and of the courts of justice.*"

(1) No authority was given to the Secretary to establish the *nomenclature* of food products. The act has reference only to their purity. Other provisions of the same section of the act clearly indicated that the subject for investigation and determination was that of *adulterations* of food products threatening the public health, and not the *nomenclature* of such products.

(2) Nor is there any intimation in the language used that the standards of purity established are *to control* the decisions of courts or juries, as to any question that might be submitted to them, but were merely intended as aids to their investigation of questions relating to the purity of food products. They are "for the guidance" of federal courts and officials, in the same sense that they are for the guidance of state officials and courts. Certainly no one would claim that congress could, or

would attempt to, control by such standards the actions of state officials or state courts, and yet they are expressly named in the act in that connection. *In fact, nothing is said in the act regarding federal officials or federal courts, but only those of the various states.* This consideration clearly points to the intended scope and purpose of the act, even though it should be held that the language of the act was intended to apply as well to federal officials and courts as to those of the various states.

Further Reference to Literature as to Corn Syrup.

Since preparing the Original and Reply Briefs for defendants, the following additional information has come to our attention.

Webster's New International Dictionary (1913), under the words "Glucose Sirup," is found this definition:

"Standard glucose sirup or corn sirup is glucose sirup or corn sirup containing not more than 25 per cent of water nor more than 3 per cent of ash.

U. S. Dept. Agric."

Bulletin No. 25 of the U. S. Department of Agriculture, Division of Chemistry, entitled "Food Adulterations," by Alexander J. Wedderburn, 1890. The Bulletin contains a prefatory note by Dr. Wiley dated December 12, 1889, at page 52 in which occurs the following statement:

"In Europe glucose is largely prepared from potatoes; in this country, on account of its greater abundance, from corn, whence the name corn sugar, corn syrup in common use."

It appears from this statement of Dr. Wiley's not only that corn syrup was a name in common use as a synonym for glucose as far back as December, 1889, but, because its source was corn, it was properly called "corn syrup." The quotation from the last edition of Webster's Dictionary not only shows that the U. S. Department of Agriculture now recognizes such synonym as a proper one, but that glucose is itself a syrup.

(12) In 1906 the Corn Products Refining Company added to the name on their labels, in order to indicate in the name itself that it was a mixture, the words "*with cane flavor*," although at the same time stating in the label the proportions of the ingredients. The proofs show that either Refiner's Syrup or sugar-cane syrup gives a cane flavor (Grady Trans., 222, 223, 435).

(13) The labels put out by the Corn Products Refining Company and its immediate predecessor, the Corn Products Manufacturing Company, as well as the labels of the companies whose properties were purchased by the Corn Products Manufacturing Company, after the Michigan statute, used different prefixes besides Kairomel and Karo to the name corn syrup, as shown by the label exhibits in the record (Grady Trans., 708-723), but all were corn syrup labels.

(14) *There is no proof in the record that the mixtures sold by defendants were at any time, after the Wisconsin statute of 1905, sold by manufacturers, wholesalers or retail dealers under any other name than "corn syrup" or "corn syrup with cane flavor."*

(15) On February 13, 1908, before the sales by defendants, the question having been submitted to them under the provisions of the Food and Drugs Act of Congress, the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor made their decision (Grady Trans., 85) to the effect that after careful consideration of the labeling of the "viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose, maltose, and dextrin" (otherwise known as glucose) it is lawful to label *this syrup* as "corn syrup," and if to the corn syrup a small percentage of refiner's syrup, a product of cane, is added, the mixture is not, in their judgment, misbranded "corn syrup with cane flavor."

(16) This history shows that counsel's wholesale charges of fraud and deception, practiced by manufacturers, mixers and dealers, in the labeling of these syrups, are not only unjust and without warrant in the facts, but wholly immaterial to the consideration of these cases.

The names by which the articles sold by the defendants have been known to the trade and to the consumer, have been a matter of evolution. At first it is evident that, while the article was generally known to the trade and to the consumer by the name "corn syrup," such name was not regarded by dealers as sufficiently attractive, so they had their own particular fancy brands, which they seemed to think would more

readily attract the attention of purchasers and perhaps more readily sell the article.

But in 1903 the companies afterwards merged into the Corn Products Manufacturing Company and its successor, the Corn Products Refining Company, *and, so far as appears to the contrary in this record, all manufacturers and mixers adopted a uniform "corn syrup label," and have ever since maintained it. This is undisputed.*

Whatever fault, therefore, there may have been in the earlier labeling, in calling the article by numerous fancy names, which counsel so vigorously denounce, an effort to correct this evil began to be honestly made as early as 1900, and in 1903 the effort had been so far successful that *all names except "corn syrup" were entirely abandoned*, and that name universally used in designating the article on labels. From November 10, 1903, until June 26, 1906, *in three separate circulars promulgated by the Agricultural Department*, the federal government, by its established standards, and from May, 1905, until July, 1907, Wisconsin, *legislatively*, approved of the name "corn syrup" as truthful. This was after its adoption had become universal with manufacturers and had been extensively advertised at great expense.

(17) If there is any fraud or deception in the use of the name "corn syrup" it has the approval of very high authority in State and Nation.

If, therefore, there is any fraud or deception in the use of the name "corn syrup," the legislature of Michigan and afterwards the legislature of Wisconsin and the legislatures of five other states, and their health departments, and finally the Secretary of Agriculture and his expert aids, *including Dr. Wiley* (Grady Trans., 375), and the three secretaries themselves of the Treasury, of Agriculture, and Commerce and Labor, *were all parties to the fraud and deception*, because by their conduct they not only encouraged the use of the name "corn syrup" by approving of it as a *true* name, but these several statutes and departmental regulations *required*—the state statutes even under a penalty—the use of that name for the mixture in case its synonym "glucose mixture" was not used.

How unjust and misleading, then, for counsel to grow violent in their denunciation of dealers in this article for their use of the name "corn syrup" as a fraud on the public, when it has had for so many years the express sanction of such high authority in both state and federal governments, as well as the customary usages of trade.

THIRD. Whatever fancy names may have been used for the mixture prior to 1903, the question is "Is Corn Syrup a truthful name" for the chief ingredient in defendants' mixture?

The question is not, therefore, how inappropriate, or even misleading some of the names used prior to 1900, or even 1903, may have been, but is the name "corn syrup" or "corn syrup with cane flavor," a *truthful* name. If it is a truthful name, defendants may not be deprived of the use of the name if they care to use it.

Counsel assert with a great deal of confidence that the literature on the subject of glucose has not called it "corn syrup" except as that name has been used since the year 1883, when the distinguished scientists selected by the National Academy of Sciences, at the instance of the United States Commissioner of Internal Revenue, made their report to that official, to the effect that one of the names used commercially, *at that time*, as a synonym of glucose was "corn syrup." It is not denied that the literature of the subject has always called this article "*a syrup*," nor that Dr. Wiley, even before the Wisconsin act of 1905 was passed, in the Year Book of the Department of Agriculture in an article on "*Table Syrups*," denominated glucose as "*a syrup of fine body*" (Grady Trans., 199).

FOURTH. But counsel for the State would divert the attention of the court from the real issue—the prohibition of the state statute against calling either the article itself or its chief ingredient a "syrup" and demanding that it be called "glucose" instead.

(1) The invalidity of the statute of 1907, as an infringement of defendants' personal and property rights, does not depend upon the fact whether the name "*corn syrup*" was or was not generally used in the literature of the subject as a synonym of glucose, or even was or was not familiarly known to the consumer of the article prior to 1903. It is not disputed that from 1903 to the passage of the statute of 1907 the article had become familiar to the consumer under that name (State's Brief, 69) and the name "corn syrup with cane flavor."

The sole question for consideration then, in this aspect of the case, is whether glucose is or is not *a syrup*, because if the statute is directed against the use of the word "syrup"—as it plainly is—when that name is a truthful and appropriate name, the statute is unreasonable and arbitrary, infringes the fundamental rights of the defendants and therefore invalid.

The State wrongly distinguishes between a "true syrup" and a syrup.

(2) The state declares that the chief ingredient of the mixture is not a "true syrup" and therefore should not be recognized as a food syrup even in mixture with another syrup. This claim distinguishes between a "syrup" and a "true syrup," and the decision of the lower court seems to go, in this aspect of the case, *solely* upon that distinction as does the act of 1907.

The designation "true syrup" is a very recent invention of the so-called food chemist.

It is not used in either of the three federal food standards of 1903, 1904 or March, 1906; nor does it elsewhere appear except in the opinions of some of these so-called food chemists. It is true that "syrup" is defined in these standards, and it is also true that *all the federal standards*, with the exception of the fourth, under date of June 26, 1906, recognize glucose as a syrup and as "corn syrup."

(3) But it is said that a "true syrup" is a product only of the sap of a sugar producing plant, and that no other kind of syrup can be recognized by the food chemist as a food syrup.

Even though a syrup, having the sweetness of sugar—but not to the same degree as sugar-cane syrup—and having the same consistency as a so-called "true syrup," can be produced from corn by a process which yields a perfectly wholesome and nutritious syrup, and, when mixed with a flavoring syrup is a palatable and most popular food syrup, and extensively used as such, and, although the article has been known for almost a hundred years as a syrup, yet it is claimed it can not now be called a syrup, simply because certain food experts—who *themselves have repeatedly called it such in the most public and authoritative manner*—arrogate to themselves the authority to reverse their former opinions and declare that no kind of a syrup can be recognized as a food syrup except the "product of the sap of a sugar producing plant."

By what warrant or authority can food syrups equally healthful and nutritious, and popularly known as food syrups, be divided into two classes, "true syrups" and "false syrups"—for that is the real line of division—*depending upon the source or method of their manufacture?* There is no warrant for any such division.

The attempt is not to designate syrups by a prefix which will truthfully indicate their source and perhaps suggest their

method of manufacture, such as "sugar-cane syrup," "maple syrup," "sorghum syrup" and "corn syrup," so that the consumer will know that one is a product of the sap of the maple tree, another of the sugar-cane or sorghum cane, and the other from the grain of the corn—the only syrup that can be produced from that source. Such a method of designating these syrups would not only be a logical method, but one conveying a definite and certain meaning. These so-called food experts admit that maple syrup, sugar-cane syrup and sorghum syrup may be called by these customary names indicative of their source, but deny to corn syrup a similar privilege.

IS REFINER'S SYRUP A MISNOMER?

(4) Counsel for the state do not deny that it is altogether right nor do they assert that it is inconsistent, for the federal standards to call "Refiner's Syrup" by that name, although it is not a "true syrup" as "syrup" is defined in the standards, because, as they say (State's Brief, 36-39) *the same standards define what Refiner's Syrup is and give to it a name of its own.*

In other words, there are and rightly may be two different kinds of syrup recognized as such in the standards themselves—one a so-called "true syrup," the other not a true syrup, but which may rightly be called a syrup, because the gentlemen who prepared the standards arbitrarily called it such. "Syrup" is defined in these standards as a "sound product made by evaporating the juice of a sugar-producing plant without removing any of the sugar" (Grady Trans., 443), while Refiner's Syrup, as the proofs show and the state concedes, is the residual liquid product obtained in the process of refining raw sugars, after all the sugar possible has been removed from it by crystallization (Grady Trans., 443, 220-221, 225). If the chemists who prepared these standards—and Dr. Fischer, the state's sole expert in these cases, was one of those gentlemen—can thus play shuttle-cock with the word "syrup," giving it two radically different and contradictory definitions in the same proclamation of standards, and yet justify both, why may not the manufacturer, wholesale or retail dealer, who has in good faith acted for many years under state statutes and departmental regulations and federal standards, as well as the customary usages of trade, who calls this article "corn syrup" or "corn syrup with cane flavor," be alike justified? If certainty in the nomenclature of trade is sought after, as it seems to be here, even to the straining point of common sense, consistency is an essential element of certainty and may not be sacrificed without destroying all certainty.

(5) It is a false assumption that the consumer believes corn syrup is the product of the corn stalk.

The claim is made, and the lower court gave controlling force to it, that anybody would naturally suppose when hear the name "corn syrup" that it is the product of the sap of the corn stalk. But is this true? *The court resorted solely to common knowledge as a basis for this decision, because there is no proof to that effect and of course could not be.* We deny that it is common knowledge that corn stalks are the source of the millions of gallons of corn syrup produced in this country annually. It is by no means certain that the ordinary consumer of syrup knows that experiments even have ever been made to ascertain whether syrup could be produced from the stalk of the corn. He knows that there is a corn called "*sweet corn*," extensively used as an article of food, and, when he hears the words "*corn syrup*," he would very naturally think that a syrup produced from corn would be from the *kernel* of this sweet corn which he knows to be sweet, and which he knows is the name ordinarily used when the kernel is referred to. We surmise it would cause a very broad smile on the faces of the farmers of the United States—who consume corn syrup in such great quantities—to suggest to them that it is a product of the cornstalk. To such a suggestion they would no doubt reply, "We feed our corn stalks to our cattle and know they are not used in the manufacture of syrup."

There would be just as much reason for saying that the public does not know that corn starch, corn meal, corn grits, corn flakes, corn oil and corn oil cake come from the kernel as to say that they are ignorant of the fact that corn syrup comes from that source.

(6) **Syrup experiments with corn stalks for syrup making.**

The assertion of counsel (State's Brief, 43) that a syrup has been made from the sap of the corn stalk in this country "in greater or less quantities ever since" our Revolutionary War is not sustained by a word of proof in the record.

In fact, just the contrary is the proof, sworn to by Dr. Chandler (Grady Trans., 225), and practically admitted by Dr. Fischer (Grady Trans., 98, 202), the only witnesses testifying on the subject. It does not appear that there is, or ever has been, a factory in the United States, or in the world for that matter, where syrup is produced from corn stalks or the sap of corn stalks.

(7) The proper name of a syrup made from the corn stalk would be corn-stalk syrup, just as that from the sugar cane is sugar-cane syrup.

Counsel for the state are wholly in error in another statement in the same connection (State's Brief, 42), to the effect that "it is conceded by Dr. Chandler" that, if a syrup were manufactured from the juice of the corn stalk, as a commercial product, the name "corn syrup" should be applied to it. Not only did Dr. Chandler make no such statement or concession, but he said the proper name for such an article would be "corn-stalk syrup" and not "corn syrup" (Grady Trans., 250, 251-252). The colloquy between Mr. Olin, counsel for the state, and Dr. Chandler (Grady Trans., 251-252) will show not only that what we have just stated is entirely correct, but that counsel's strictures on that portion of Dr. Chandler's testimony (State's Brief, 242-243) are both unwarranted and most unjust. Their intimation that Dr. Chandler corruptly changed his testimony, during the recess of the court, is a clear perversion of the facts, in view of the statement of counsel to Dr. Chandler found in the record (Grady Trans., 251-252), to the effect that he had not asked the doctor any question about making syrup from corn stalks, and that the doctor had understood his question rightly when he thought the reference was to corn starch.

(8) Corn Syrup an inappropriate name for potato syrup conceded.

It is even suggested by counsel (State's Brief, 41) that a time may come in this country, as is the case in Europe, when glucose made from potatoes may be used in mixture with sugar-cane or other flavoring syrups as a food syrup, and it would be a fraud and deception to use "corn syrup" as a name of such a mixture. Of course, it would be a fraud and deception to give to "potato syrup" the name "corn syrup." Potatoes represent the source of the one syrup, just as corn represents the source of the other syrup, and these sources may not be confounded or misstated. Counsel must have reached the limits of desperation when they resort to such an argument to sustain their contention that a syrup made from corn may not be called "corn syrup."

FIFTH. The presence of dextrin in corn syrup not objectionable, nor prevents the article being a food syrup.

Counsel for the state enter into an elaborate argument (State's Brief, 27-31) to show that there is no dextrin in sugar-

cane syrup or other syrups produced from the sap of sugar producing plants, but that there is dextrin in corn syrup, and hence corn syrup should not be regarded as a *true* syrup. They also assert that the presence of dextrin in a food syrup is objectionable.

This contention falls to pieces when the conceded facts are stated.

(1) Dextrin is absolutely essential in any syrup produced from starch, whatever the source of the starch, because without it the syrup will crystallize and lose its form as syrup (Grady Trans., 219, 220). The article will not remain in the form of a syrup without dextrin, any more than refiner's syrup, sugar-cane syrup or syrup made from sugar concrete will remain syrup without the presence of water in it.

(2) Dextrin is developed from the starch in the production of corn syrup and is a wholesome and nutritious element in the syrup. Dr. Chandler testified (Grady Trans., 219):

"Dextrin is one of the most common articles of food that we consume. Every loaf of bread is coated with a crust, which is rich in dextrin, often as much as 18 per cent, and when the bread is made up into small loaves and finger bread, by which the amount of crust is increased, of course we get a much larger percentage of dextrin. * * * Toasted bread is rich in dextrin, because the bread has been cut into thin slices and the entire surface and edges of the slices have been exposed to a high temperature before the fire, and the starch has been largely converted into dextrin. The physician knows this and when his patient is convalescing, one of the first forms of food which he gives him, because it is so easily digested, is toast tea, which is made by steeping slices of toasted bread in hot water; the result is that the patient gets a solution of dextrin."

In making a perfect sample of anhydrous sugar, *the dextrin is all converted into dextrose* (Grady Trans., 220).

Not a word of this testimony is disputed by the state, but is accepted as the truth.

Is the presence of dextrin objectionable, then, in a food syrup made from corn? How can it be objectionable when it is a wholesome and nutritious food and its presence in the syrup is *essential* to keep the article in that form. It certainly is as wholesome and nutritious as the 30 to 35 per cent of water in refiner's syrup or sugar-cane syrup, which is essential to retain those syrups in their form as such.

Dr. Chandler and the other scientists who made their report

in 1883 to the Commissioner of Internal Revenue—which is frequently referred to in our original brief and in the state's brief—did not then know that the presence of dextrin in glucose or corn syrup was essential to its form as a syrup, and therefore stated that its presence there was objectionable "*as it has no sweetening power*" (Grady Trans., 254). That was 29 years ago when knowledge of the article was not as accurate as now. Dr. Chandler testified on the trial of these cases that he as well as his associates in that report were ignorant *at that time*, of the office of dextrin in glucose, and hence reported as they did, but that he has since that time discovered his mistake and states how he came to make the discovery (Grady Trans., 220).

Counsel for the state do not question the nutritious quality of dextrin as a food, nor the necessity of its presence in glucose or corn syrup, in order that it retain its form as such, *and yet vigorously impugn the honesty of Dr. Chandler* (State's Brief, 28-29) for asserting that he was in error in reporting as he did in 1883 to the Commissioner of Internal Revenue (Grady Trans., 228-229).

Even in view of these conceded facts counsel make the claim (State's Brief, 22) "*that to the extent that it (dextrin) is being used as a part of any so-called table syrup, just to that extent is such syrup adulterated by the mixture of an article or element not only inferior in quality but containing none of the characteristics of a sugar or syrup.*"

Counsel speak of dextrin as though it were a foreign and adulterating element in glucose or corn syrup, when it is conceded a natural element developed out of the very starch of the corn in the manufacture of the syrup itself. They speak of dextrin also as an element "*inferior in quality.*" *Inferior to what in quality?* It certainly is a very nutritious element in the syrup. It is a food just as the syrup itself is a food; in fact it helps to make the syrup a food, and how can it be said to be *inferior* to the other elements in the syrup? It has no sweetness, of course, neither has the 30 to 35 per cent of *water* in sugar-cane syrup, or sorghum syrup, maple syrup or sugar syrup any sweetness (Grady Trans., 443). Nor has the *ash* in any one of these syrups any sweetness to it, and yet it is permissible according to the standards, and as we understand can not be dispensed with as an element in these syrups (Grady Trans., 443).

Such an argument as counsel make in this contention is very far-fetched and without force.

SIXTH. Syrup is a generic term and may be properly used to designate an article having the qualities of a syrup as customarily understood.

We especially call the attention of the court again to the two cases in our original brief, at pp. 64 and 66, and the opinion of the Attorney General referred to at page 56.

Maillard vs. Lawrence, 16 How. 251, 261.

California Fig Syrup Co. vs. Frederick Stearns & Co.,
(C. C. A.) 73 Fed. 812.

(1) The Attorney General in declaring the rule which should govern in the enforcement of the Food and Drugs Act of Congress only voiced the spirit of these two cases when he said:

"In determining the proper nomenclature of food as defined in the act, the intention of the law will be best preserved by giving to such articles *names readily understood and conveying definite and familiar ideas to the general public, although such names may be incorrect in the view of the chemist or physicist or the expert in some particular industrial art* * * * (Italics ours.)

This language must sound like heresy to many so-called food chemists.

The language of the cases just cited may well be repeated here. In *Maillard vs. Lawrence*, the court in construing the tariff act of 1846 said as to the name of certain familiar articles:

"In instances in which words or phrases are novel or obscure, as in terms of art, where they are peculiar or exclusive in their signification, it may be proper to explain or elucidate them by reference to the art or science to which they are appropriate; but if *language which is familiar to all classes and grades and occupations—language the meaning of which is impressed upon all the daily habits and necessities of all—may be wrested from its established and popular import in reference to the common concerns of life, there can be little stability or safety in the regulations of society.*" (Italics ours.)

In the *California Fig Syrup* case the same rule is enforced in language very nearly approaching the instant case.

"*Fig syrup is a descriptive term. It may be that no one had ever made a syrup of figs at the time Queen selected the term to designate the preparation which he put upon the market. That is immaterial. It is entirely possible to*

describe something by the use of common words which may never have had a commercial use or which may never have been in fact made." (Italics ours.)

With how much more propriety may names like "corn syrup" or "corn syrup with cane flavor," which have for many years been recognized as truthful names by statutory regulation, by federal standards and departmental rulings and decisions, as well as common commercial usage, be recognized and accepted as firmly established in the nomenclature of trade.

(2) **Corn Syrup is a syrup, although differing from sugar-cane, maple or sorghum syrups in chemical composition and nutritive qualities.**

The fact, too, that "corn syrup" may not possess *all* the nutritive qualities of some other syrups or even different nutritive qualities does not affect the question here involved. One food may nourish one part of the human system and another food sustain an entirely different part. Wheat bread, corn bread and *bran bread* may each serve its own peculiar office as a food, and yet all be properly called a "bread." They are simply breads of a different kind—each kind indicated by its prefix. To say that corn syrup may not be called a syrup, because it hasn't *exactly the same* chemical composition or does not possess the *same* nutritive elements as sugar-cane syrup or maple syrup or sorghum syrup, but has its own peculiar chemical and nutritive qualities, is without reason or common sense.

(3) **There is nothing obscure or mysterious in the word "syrup," and the different kinds are designated by their prefixes.**

The word "is familiar to all classes and grades and occupations." Everybody recognizes it as a generic term, descriptive of a class of substances, by certain well recognized qualities they possess, and not as necessarily descriptive of their origin or method of manufacture. This latter signification is given to the word syrup only by the prefixes that may be attached. The source of sugar-cane syrup is suggested to the common understanding by the prefix "sugar-cane." This prefix *suggests* the method of manufacture; *but only* because the public knows that the sap of the sugar-cane furnishes a saccharine substance which is made into a syrup by evaporation. This may be said to be common knowledge. The words "sugar-cane" themselves do not signify that the syrup is produced by evaporation. But for that fact resort must be had to the knowledge which the

public is supposed and does possess of matters of such common concern. The same is true as to maple syrup and sorghum syrup. The sources of these syrups are suggested by the prefixes "maple" and "sorghum," but the fact that such syrups are produced by the evaporation of the sap of the maple tree or the stalk of the sorghum cane is not in any sense indicated by the name of the syrup, but is brought to the consumer only by his acquired knowledge of the processes by which such syrups are manufactured. So also in regard to "corn syrup" or "corn syrup with corn flavor." That the chief ingredient of that article is a syrup is clearly shown to the consumer by the qualities it possesses—the sweetness of sugar and its viscid consistency. These may be tested by sight and taste. The source of the syrup is indicated by the prefix "corn"; while the method of its manufacture must come to the consumer—if that is a material fact for him to know—from his general information or acquired knowledge of the manner in which corn syrup is produced from corn. There is but one way it can be produced, that is, by the action of hydrochloric or other appropriate acid—hydrochloric is now used—on the starch of the corn and the neutralization of the acid and purification of the product. This may not be common knowledge, but it is information that is ascertainable. At any rate the consumer knows when he hears or sees the name "corn syrup" that the syrup is a product of corn—the kernel and not the stalk—and that it is manufactured by some process which results in a syrup and which leaves the article pure and wholesome. That is all the information the consumer needs, since the article is concededly a pure, wholesome and nutritious food in common use. It is mere assumption to say that the consumer is ignorant even of the method of manufacture of corn syrup, and there is no license for basing a statute upon such assumption of public ignorance. He certainly is no more ignorant of the source or method of manufacture of corn syrup than he is of glucose. There is nothing about the word "glucose" that would indicate either, and there is about the words "corn syrup."

(4) Incident of beer poisoning in Manchester, Eng., in 1894.

Counsel for the state would reply to this, as they do, that in a single instance in Manchester, England, about the year 1894, there was a case of poisoning from beer, in the manufacture of which glucose had been used. It was traced to the iron pyrites from which the sulphuric acid was made (Grady Trans., 48, 67-68, 226-227). Counsel in connection with a reference to this fact say (State's Brief, 126-127):

"It is the contention on the part of the state that the

consumer who eats the product is entitled to know what this product is, so as to make an intelligent decision as to whether he will buy it and eat it or whether he will buy some other product; that he is entitled to know whether he is getting a product that is manufactured from starch or from the sap of a sugar-producing plant."

Would calling the article "glucose" give him that information when calling it "corn syrup" would not?

But we insist that the consumer does know that he is getting a product manufactured from *corn*, *not the corn stalk*, and that he is getting an article in common use as a food and that he is getting a pure, wholesome and nutritious article of food when he buys "corn syrup." What more does he need to know? The suggestion that he has a right to know whether he is in any peril of being poisoned, by anything that is in the article, is little short of ridiculous, when there is no claim made by the state that there is at present any danger whatsoever involved in the consuming of corn syrup. *The statute of 1907 goes upon the assumption that there is no such danger, because it permits its sale, but only under a different name.* Certainly there would be no less danger in the consumption of the article if it were called "glucose" than if it were called "corn syrup." It appears in the testimony that the strictest precautions are taken in the manufacture of glucose not only to neutralize the acid by means of which it is produced, but to cleanse and purify the product (Grady Trans., 375, 401-402). This is undisputed, and, as already said, the statute of 1907 proceeds upon such concession as to the wholesomeness of the product. Of course the claim of counsel is based largely upon the assumption—*without a word of evidence in the record to sustain it*—that the consumer, because of his ignorance, does not know that "corn syrup" is not a product of the corn stalk instead of the corn. We have considered this proposition in so many different phases that it is needless to say more about it here. That anybody of any intelligence whatever would think a food syrup, in such common use as corn syrup is admitted to be, is manufactured from the corn stalk instead of the *corn*, as that word is ordinarily understood in the usages of trade, is beyond belief.

(5) **Defendants insist upon the strictest honesty in their label.**

The defendants do not claim that they are at liberty to practice any deceit upon, or to mislead the public in any way whatever in branding or labeling the article in question. They merely assert they may do what is honest, and the state may not deprive them of the privilege of doing what is honest—especially

when what the state requires prejudices the sale of the article.

The defendants insist that the chief ingredient in their article is a syrup, made from corn, and may rightly be called "corn syrup"; and that it has long been recognized by that name commercially. Even the mixture of that article with a flavoring syrup was long known by the name "corn syrup," not only commercially but by legislative enactment in Wisconsin and elsewhere, and by the federal standards. The chief ingredient of the article is recognized by the rulings of the Bureau of Chemistry of the Department of Agriculture and by the decisions of the secretaries of the Treasury, of Agriculture and of Commerce and Labor, as "corn syrup." They are not, therefore, asking anything that is not honest when they ask that they may be permitted to sell the article labeled in that way, when to sell it labeled as glucose would greatly prejudice its sale.

We admit that the defendants may be required to truthfully name the ingredients of their mixture on their labels. *And this is done on their labels.* The citation of authorities by counsel to the effect of the admissions we are making is of no effect, because the defendants have never claimed to the contrary.

SEVENTH. We are greatly surprised at the statement of counsel for the state at page 135 of their brief, where they say:

"It is conceded by the defense that until February 13, 1908, the article that makes up 90% of one of the cans sold, was never known in this country by any other name than glucose."

Counsel must know the defense concedes no such thing, but has always insisted on just the contrary. Counsel know that the defense has always claimed that *when the article called "glucose" is used in the preparation of table syrups it has never been called "glucose," on syrup labels, anywhere or at any time prior to the passage of the Wisconsin act of 1907, here questioned.* The Michigan act of 1903 and the Wisconsin act of 1905 required the mixture to be called either "Glucose Mixture" or "Corn Syrup," but the proofs show that even after the enactment of those statutes the article was never called on labels "Glucose Mixture," but always "Corn Syrup." There is not a word of evidence in the record to show that "glucose," so-called, when used in mixture with a flavoring syrup for food purposes, has ever been called, on labels, "glucose" until the act of 1907 required such name. Even then only a few wholesalers, especially in and about Madison, the capital of Wisconsin, complied with that statute, by specially requesting the Corn Products Refining Company, from whom they purchased, to brand the syrups put up for them in that way (Grady Trans., 133).

Counsel must also know that the proofs show that the first three federal standards, dated Nov. 10, 1903, Dec. 20, 1904, and March 8, 1906, *expressly* give "corn syrup" as a synonym for glucose, either unmixed or mixed with syrup or molasses (Grady Trans., 74-75). Counsel must also know that as far back as 1883 the report to the Commissioner of Internal Revenue by the four scientists appointed, at the instance of the Commissioner, by the National Academy of Sciences to investigate glucose, among whom were Dr. Chandler and Prof. Ira Remsen, expressly states that one of the commercial synonyms of glucose was *at that time* "corn syrup" (Grady Trans., 212).

The defense in numerous other ways made proof of the commercial use of corn syrup as a synonym of glucose, as well as of the mixture of glucose and a flavoring syrup.

It is conceded by the defense that glucose, *when used for other purposes than in the preparation of a food syrup, as between manufacturers making such use*, was always prior to 1908, called glucose. But that fact is immaterial to the consideration of the question whether the defendants or manufacturers, wholesalers or retailers may, if they will, *when selling a food syrup*, composed of that article and a flavoring syrup, call the article on their labels "corn syrup" or "corn syrup with cane flavor." The statement of counsel is most startling when viewed in the light of the uncontradicted proofs.

EIGHTH. But counsel for the state further pervert the proofs and defendants' contentions, in the remainder of the paragraph just quoted from (State's Brief, p. 135), where they say:

"Counsel will not contend that these (glucose and refiner's syrup) are not the proper names for those ingredients before they are mixed, but does merely mixing them change their character, and is the public to be denied the right to know the true ingredients of the compound, because, as contended, the public would not so freely buy it if it knew the ingredients, because of the alleged prejudice against glucose?"

Every line of this statement is misleading and contrary to any contention ever made by the defense in these cases.

Counsel must know we have always conceded the right of the state—in the absence of federal legislation covering the same field as to interstate commerce—to insist upon a dealer in food products truthfully stating their ingredients on the labels under which they are sold, and that the names of the ingredients must not be misstated. They also know that the defense insists that "corn syrup" is a truthful name, and that the state has no constitutional right to insist that the label shall not bear that name or any other name designating a syrup, but only the name "glu-

cose"—which latter name for an ingredient in a food syrup or of the syrup itself prejudices the sale of the article. The fact that the same ingredient when used in the manufacture of jellies, confectionery and other similar foods, *but not a food syrup*, is called "glucose" between manufacturers and dealers, does not affect the question in any sense. Calling it glucose under such circumstances would not prejudice the sale of anything *because the consumer is not being dealt with in that transaction*.

Counsel also know that the defense has never claimed that merely mixing the article with another syrup authorizes a change of the name of the article *from a true to a false name*. This is the insinuation counsel make. What we have always insisted on is—as counsel must know—that since the article is known by both names, "glucose" and "corn syrup," and when constituting a part of a food syrup has always been known on labels as "corn syrup" and not as glucose, *when either name has been used*, the state can not lawfully deny to a dealer the right to use on his labels the name "corn syrup," if he wishes, when to use the name glucose would prejudice the sale.

NINTH. A statute unnecessarily enforcing use of technical names for articles in common use instead of familiar names would not be valid.

Our claim is clearly shown by the illustration used by Mr. Justice Timlin of the Wisconsin Supreme Court, in the dissenting opinion in these cases (Grady Trans., 474), when he said:

"To use a simple illustration: I do not think a statute imposing a penalty upon any one who sold salt as 'chloride of sodium' or 'sodium chloride' would be valid, no matter what number of persons would refuse to use it under the latter name because they relish it as salt and despise it as 'sodium chloride.'"

Take another illustration. The Greek word meaning "starch" is anglicized into the word "amylum," just as the Greek word meaning "sweet" is anglicized into the word "glucose." Would the distinguished counsel for the state justify a statute which penalized the use of the word "salt" on a package label and declares that the words "chloride of sodium" alone should be used? Or would anybody have the hardihood to attempt to justify a statute which would penalize the use of the word "starch" on a package label and insist only on the use of the word "amylum"—which perhaps not one person in a thousand had ever seen or knew the meaning of?

The fact that the same article of food may have two different names—equally truthful, of course—one of which is in common use and is well known and understood by the public, while the other is known only to a few persons and understood perhaps only by scientists or experts in some particular art or line of trade or business, will not justify a penal statute in the selection of the latter name as against the former as the *only* name under which the article may be sold, especially when the latter name would concededly, as here, prejudice the sale of the article.

This is just what the statute we are complaining of does, and counsel for the state must know this is and always has been the claim of the defense, as shown by the decision of the lower court and by the brief filed here on behalf of the defendants.

TENTH. Counsel cite *United States vs. Scanlon*, 180 Fed. 485, as very much in point here. It seems to us the only point in the case really applicable here is favorable to the defense.

In that case the bottles were labeled "Western Reserve Ohio Blended Maple Syrup." This name was in large type and much more conspicuous than the accompanying statement, in smaller type, that "this syrup is made from the sugar maple tree and cane syrup." The fact was, the article was made of cane syrup **flavored with a product made, as the manufacturer swore, "by some treatment of the chopped-down maple tree, whereby he gets an enormously larger amount of what may be called maple saccharine than is obtained from the free flowing of sap from the live tree."** The court held that this product was not maple syrup because that syrup is produced only from the free flowing sap of the live maple tree. The court held that the label was clearly meant to falsely convey the impression that the article was a maple syrup, and to do so by a label "*designed to go as far as it could in advertising the fact that maple syrup was there and still to comply with the pure food act.*"

Of course that is not this case. To call that "maple syrup" which is not in fact maple syrup, as that article is commonly understood to be by consumers of the article, was of course misleading, if not absolutely false. Maple syrup is not known by two names, equally true, nor may it be produced from two different sources, and hence the false or misleading character of the label in that case.

But the court used language which is very significant here (p. 486) :

"It is not so much a question of chemistry as of popular comprehension. We would not have any pure food laws if

we were all chemists, because we would be able to find out for ourselves what the thing was we were buying. * * * *It is a question of what is the popularly recognized definition of maple syrup; and that undoubtedly is, and we do not need the chemists to testify to it, that it is the syrup produced from the live maple tree.*"

So here it does not require a chemist to tell the consumer of "corn syrup" that it is a syrup. He knows that by its consistency and taste. He may not know how sweet that syrup alone, unmixed with a flavoring syrup, would be, and yet he knows it has the consistency of a syrup, as he understands a syrup to be, and that it has the sweetness of sugar, and, in combination with a flavoring syrup, is wholesome, palatable and nutritious. Then beside all this he knows it by the name in mixture with a flavoring syrup. For years he has bought it under that label name. The name of the article and of the ingredients are on the label and they speak a definite and plain message to him, when the article is called "corn syrup" or "corn syrup with cane flavor," especially the latter. When the name "corn syrup" is changed to "glucose," the consumer is confronted with a name he knows nothing about, that he never saw or heard of before, or if he has heard of it understands it to have a filthy source, and he is at once suspicious of the article and refuses to buy it. This is the uncontradicted testimony, and the finding of the trial court to that effect is not disturbed by the supreme court of the state (Grady Trans., 27).

If the state allows the chemist, even though he professes to be a food chemist, to dictate or to change the nomenclature of common articles of food, which already have established names well known and understood by the public, there is no telling when he may declare that salt shall be called only by its chemical name, "chloride of sodium," or starch by its technical name "amylum," just as the surgeon on the witness stand speaks only in the technical language of his profession—readily understood by his fellows, but only Greek to the untutored ear.

We leave untouched many of the claims of counsel and the authorities cited to sustain them, because we do not feel that we should extend this reply further. We apologize to the court for extending it even so far, and respectfully submit it for consideration by the court.

We respectfully insist that the judgments in both cases should be reversed.

H. O. FAIRCHILD,
Attorney for Plaintiffs in Error.

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SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1912

Nos. 112 and 113

GEORGE McDERMOTT,

Plaintiff in Error,

vs.

THE STATE OF WISCONSIN,

Defendant in Error.

T. H. GRADY,

Plaintiff in Error,

vs.

THE STATE OF WISCONSIN,

Defendant in Error.

BRIEF FOR DEFENDANT IN ERROR.

STATEMENT.

The above cases were tried together, upon stipulation of counsel, and before the court, a jury having been expressly waived. For convenience we shall, throughout this brief, use the term defendant, instead of plaintiff in error. The defendants, upon the record, are George McDermott and T. H. Grady, but the real defendant, the party making the defense to these prosecutions, is The Corn Products Refining Company, having

its principal office at No. 26 Broadway, New York City, although an Illinois corporation. Trans. 368.

The trial in the circuit court of Wisconsin resulted in a judgment against the defendants, and, upon writ of error to the supreme court of the state, this judgment was affirmed.

143 Wis. 18.

By stipulation of counsel, both cases were argued together in the supreme court of Wisconsin, and under a similar stipulation, both cases are to be argued together in this court.

All references, unless otherwise indicated, are to the top page of the printed record in the McDermott case.

The complaint, in each case, is for the violation of one part of section 4601-1a, being a part of chapter 557, Laws of 1907, Wis. The complaint charged, in the Grady case, that the defendant, on March 21, 1908, unlawfully sold a certain "compound and mixture composed of more than 75 per cent of glucose and less than 25 per cent of refiners' syrup, said refiners' syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was unlawfully branded and labeled 'Karo Corn Syrup with Cane Flavor,' and was further then and there unlawfully branded and labeled 'Corn Syrup 85%.'" Grady Case. Trans. 18.

The complaint in the McDermott case charges the same as in the Grady case, except that in the McDermott case the can containing the mixture sold was unlawfully branded "Karo Corn Syrup," and was unlawfully branded and labeled "10% cane syrup, 90% corn syrup." Trans. 18.

The case is a test case. The testimony is quite voluminous. Great liberality was shown by the court in its reception of evidence and the defendants allege no error in the reception or exclusion of evidence.

Nor is there any question but what the decision of the trial and Supreme Courts of Wisconsin should be affirmed, if the statute in question is constitutional. The claim of the state,

briefly stated, is that the statute under which these prosecutions were had is in all respects constitutional, falling clearly within the police powers of the state, that its object is to prevent deception and fraud in the sale of a common article of food by compelling those who deal in it to brand or label it and sell it for what it actually is; that it is within the police power of the state to say, that an article composed of from 85% to 90% of common, commercial glucose and of from 10% to 15% of refiners' syrup, shall be so labeled, when sold to the consumer.

The case, while most important to the people of Wisconsin, does not, as we view it, involve any intricate question of law. The controversy is largely one of fact.

Counsel for the respective parties to this controversy differ radically in their views as to the ultimate facts established by the evidence. But the learned trial court found these facts against the contention of counsel for defendant, as did also the Supreme Court of Wisconsin. As stated in its opinion: "The claim that it ('corn syrup') is in fact a syrup, as this term is commonly used and understood, is not sustained." Trans. 308.

Counsel concedes at p. 54 of his brief, that this court will not review questions of fact determined by the state court, upon conflicting proofs. But he contends that there is no evidence in the case in support of the findings of the trial and the Supreme Court of the State. And he devotes the last half of his brief to a discussion of the evidence. This makes it necessary for counsel for the state to analyze and discuss the evidence, though we are satisfied that the findings of fact by the Wisconsin courts are sustained by the overwhelming weight of the testimony.

I.

The Evidence in Support of the Decision Below, Analyzed.**1. Legislation in Wisconsin, on the subject of pure food laws, so far as material, prior to the statute in question.**

The first pure food law, that was at all general or comprehensive, enacted in Wisconsin, was chapter 166, laws 1897. While that law did much good, it was, as might have been anticipated, quite defective. This is plainly shown by an examination of the reports of the Dairy and Food Commissioner of the state, from 1898 down to 1905.

These reports show that one of the most frequent cases of fraud with which the department had to contend was the sale of different so-called syrups, under various deceptive names, as true syrups, which were composed mostly of commercial glucose. In the report for 1905, Dr. Fischer, at p. 145, says:

"Most of the samples (of syrup) sold as rock candy syrup or drips, table syrup, sugar syrup and cane sugar syrup, and so labeled were found to be compound glucose mixtures containing but little cane syrup. Several samples sold as pure sorghum were found to consist mainly of glucose. One sample each of maple, and cane syrup and maple cream syrup contained large quantities of the same adulterant."

Speaking of the conditions as they existed in Wisconsin up to the legislation of 1905, Dr. Fischer testified in this case:

"We found on the markets of Wisconsin glucose mixtures containing over seventy-five per cent glucose and generally as high as ninety, sold under such names as Fancy Table Syrup, Golden Syrup, Crystal Drips, Rock Candy Drips, etc. The mixtures that were sold under the name of molasses contained less glucose, between fifty and sixty per cent. Quite a number of such mixtures, containing perhaps sixty per cent glucose and forty per cent of syrup were sold as pure Louisiana molasses. Others containing sixty per cent

of glucose and forty per cent of sorghum were sold as pure sorghum. We found some samples of honey which consisted largely of glucose." Trans. 49-50.

This testimony is corroborated by substantially all of the witnesses called on both sides of this case. As illustrations of such testimony, see Trans. 173, 120, 282-283.

Prior to the legislation of 1905, there had been practically no sales in Wisconsin of an article under the name of "corn syrup." As stated by Dr. Fischer: "I don't remember personally of having seen any (corn syrup) put upon the market in Wisconsin under that label previous to 1905. It may have been. I testified yesterday that samples so labeled did not come to our laboratory." Trans. 67.

To the same effect see testimony of Mr. Emery, Trans. 120-122, 304.

Chapter 152, laws of 1905, was the next step by the Wisconsin Legislature toward securing honesty in the manufacture and sale of certain food products. It is this law that is amended and very much changed by chapter 557, laws of 1907.

The first section of this law required any article such as "syrup, sugar cane syrup, sorghum syrup, molasses or glucose" to be, when sold, "true to the name under which it is sold, and as defined in the standards of purity for food products adopted by the United States Department of Agriculture," and it required the can or receptacle containing the article to be distinctly "branded or labeled with the true name of its contents as defined in the above standards."

This statute further prohibited any person from selling or having in his possession with intent to sell, any "syrup, sugar cane syrup, sorghum syrup or molasses mixed with glucose unless the mixture be sold as and for compound glucose mixture or *corn syrup*, and unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled 'glucose mixture' or 'corn syrup'." The section further

provides the particular size of letters, etc., to be used in the brand.

It will be observed that the term "corn syrup" is here used in this statute as synonymous with the term "*glucose mixture*," and this fact is strongly urged by counsel for defendant, as a reason against permitting the Wisconsin Legislature to correct, by subsequent legislation, the error made in 1905.

There are several explanations for the use of this language. The first is, that this statute was borrowed substantially from the Michigan statute, and that the Michigan statute contained the above language. For a statement of the Michigan statute, see,

People v. Harris, 97 N. W. 402; 135 Mich. 136. (Dec. 1903.)

Another reason why the language, "corn syrup" found its way into the Wisconsin Statute of 1905, is, that at and prior to the time of the enactment of this law, the main object of the legislation and of those entrusted with its enforcement was to prevent the selling of glucose or glucose mixtures under the name of sorghum, molasses, rock candy drips, honey drips, etc. This is demonstrated by all of the testimony in the case on the subject, some of which has been quoted above. The testimony in this case shows that prior to the legislation in Wisconsin and other states prohibiting the sale of these mixtures under these fancy names, such as pride sorghum, honey drips, rock candy drips, etc., there had been no effort made on the part of the manufacturers or dealers in commercial glucose to sell this article *to the consumer*, either mixed or unmixed, under the name of "corn syrup." So long as the article could be palmed off upon the public as a true syrup under these fancy and deceptive names, there was no object in attempting to sell it under the name of corn syrup; and it was not until a number of states had, by legislation, made the sale of such mixtures,

as syrups, illegal, that there was any occasion for attempting to sell commercial glucose under the name of "corn syrup."

Before the next Wisconsin Legislature met, the United States Food and Drugs Act had been passed, on June 30, 1906. Moreover, the Dairy and Food Commissioner, through his department, had been endeavoring to enforce chapter 152, laws of 1905. It was found that the dealers in commercial glucose, not being permitted to sell to the consumer the article under the fancy and deceptive names in use prior to the enactment of this law, had adopted the name of "corn syrup." The use of this term was permitted in this law as a synonym for commercial glucose. Such permission was found to be a radical defect in the law. This article, containing from eighty-five to ninety per cent of commercial glucose, made from starch, was being fraudulently advertised and sold in large quantities in Wisconsin as a true syrup in a manner to induce the belief in the consumer that it was made from corn in the same sense as maple syrup is made from the sap of the maple tree.

The department had also learned that articles labeled as was required by the statute of 1905 did not comply with the United States regulations under the national food law as to this mixture. These regulations required that labels for mixtures should contain more than one name, and the desire of the department was to have the law amended so that there would be no conflict with the United States pure food statute. Trans. 294-295.

In the meantime, and prior to the enactment of chapter 557 of the laws of 1907, the United States standards for food products had been changed by the dropping out of the words "corn syrup," as a synonym for "glucose," as will be considered later. That is, the United States Secretary of Agriculture had ruled against the sale of commercial glucose, whether mixed or unmixed, under the name of "corn syrup."

The above are some of the reasons that led to the enactment of chapter 557, laws of 1907.

The first part of this section, which amends section 1, of chapter 152, laws of 1905, deals with the single or unmixed article down to the semi-colon, and it would seem that this section ought to have stopped at this point, and the remaining portion of the section have been put in a separate section. However, the statute is, we think, perfectly plain as to its meaning. This portion of the section does not deal with a mixture of any kind, but it deals with the individual syrup, molasses or glucose. It is the contention of the state that this portion of the section is independent of what follows, and that the two parts of the section deal with separate matters; and that an offense may be committed under the second part, or latter part of the section, independent wholly of the question of standards. Such was the finding of the learned trial court:

"The part of the act relating to mixed syrup is complete in itself. It prescribes exactly the label required for each different mixture and defines and characterizes this mixture

"Section 4601-1a. No person . . . by himself . . . or agent . . . shall sell, offer or expose for sale or have in his possession with intent to sell, any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup, molasses or glucose, unless the same be true to the name under which it is sold and as defined in the standards of purity for food products as latest promulgated by the United States Secretary of Agriculture, and unless the barrel, cask, keg, can, pail or other original container, containing the same, be distinctly branded or labeled with the true name of its contents, as defined in the above named standards; and no person . . . by himself . . . or agent . . . shall sell, offer or expose for sale, or have in his possession with intent to sell, any syrup, maple syrup, sugar cane syrup, sugar syrup, refiners' syrup, sorghum syrup or molasses, mixed with glucose, unless the barrel, cask, keg, can, pail, or other original container, containing the same be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture, as follows:

"First. In case said mixture shall contain glucose in a proportion not to exceed 50 per cent. by weight, it shall be labeled and sold as 'Maple Syrup and Glucose,' etc.

"Second. In case said mixture shall contain glucose in a proportion exceeding 50 per cent. and not more than 75 per cent. by weight, it shall be labeled and sold as 'Glucose and Maple Syrup,' etc.

"Third. In case said mixture shall contain glucose in a proportion exceeding 75 per cent. by weight, it shall be labeled and sold as 'Glucose Flavored with Maple Syrup,' etc.

without any reference to the standards or the preceding part of the section. Even if the part of the act relating to unmixed syrups be void (a conclusion which the court has not arrived at) the balance of the act is independent of these provisions, and valid and enforceable." Trans. 29.

Such also was the decision of the Supreme Court:

"The section, in a separate and independent clause, next provides that no person shall sell any such syrup or molasses mixed with glucose, unless the original containers be branded or labeled as therein provided. The lower court held that the first part of the act, relating to the mixtures of syrups, molasses and glucose, is a separate and independent clause, and wholly distinct from the clause preceding it, which deals with articles in their unmixed state, as defined in the prescribed standard of purity. We are of the opinion that this ruling is correct." Trans. 485.

It is under this third subdivision of the latter part of the section that the present cases fall, and the article sold should have been labeled and sold as, "glucose flavored with refiners' syrup."

While the testimony does not show the reason for these three divisions, classifying the article according to the percentage of glucose used, yet one can easily see reasons for such classification. Jobbers and manufacturers might well contend that in order to obtain a mixture of uniform flavor and color on account of the varying flavor and color of the raw material, from year to year, it was necessary to use different percentages at different times. On the other hand, it might be quite difficult for the food chemist to determine exactly the percentages of such a mixture, while he could easily determine by analysis into which group the particular case would fall. Moreover, it is plain under the testimony that the great bulk, if not all of the mixtures being considered, fall within the third subdivision of the section.

As above stated, this second portion of the statute, containing these three subdivisions, stands by itself, and, as con-

tended by the state, is violated by labeling an article contrary to its provisions, irrespective of the question as to whether such article comes up to any standard fixed either by the United States or any other authority as to purity. That this is the correct interpretation of the statute is made plain by the next section of the Act, 4601-2a, which deals exclusively with maple syrup and its various mixtures, not including glucose, that having been covered by the preceding section. But it will be noted that the same division or clasification, substantially, is here made as in the preceding section with reference to glucose.

2. Legislation of Congress providing for standards of purity for food products, and action thereunder, considered.

Though this prosecution is, as contended by the State, under that portion of section 4601-1a, which deals in mixed products or compounds, and not under that portion which provides that the article sold must be "as defined in the standards of purity for food products as * * * latest promulgated by the United States * * * Secretary of Agriculture," it is necessary to consider the testimony as to these standards so far as they define glucose and the different syrups, for the State contends that the definitions as thus finally promulgated in what is called Circular No. 19, under date of June 26, 1906, are corect definitions, and that the Wisconsin statute, in requiring the branding of the article sold as "glucose flavored with refiners' syrup" is in accordance with these definitions, and that these definitions rest upon rational and inherent distinctions in the different articles of food involved in this case; and that the Wisconsin Legislature by enacting said chapter 557, Laws 1907, placed itself in harmony with the rulings of the U. S. Department of Agriculture.

In each of the acts passed by Congress making appropriations for the Department of Agriculture and approved on the

respective dates, to-wit, June 3, 1902, March 3, 1903, April 23, 1904, and March 3, 1905, there was contained under the subdivision headed, "Laboratory, Department of Agriculture; General Expenses, etc.," an appropriation, to quote the language used,

"to enable the Secretary of Agriculture, in collaboration with the Association of Official Agricultural Chemists and such other experts as he may deem necessary, to establish standards of purity for food products and to determine what are regarded as adulterations therein." Trans. 84-85.

Under the authority given by these various statutes, food standards were established and promulgated in circular No. 19, under date of June 26, 1906, four days prior to the enactment of the Food and Drugs Act. Trans. 73, 440.

At the time of the adoption of Circular No. 19, the Committee on Food Standards consisted of Dr. William Frear, Director of the Pennsylvania Agricultural Experiment Station, Dr. Edward H. Jenkins, Director of the Connecticut Agricultural Experiment Station, Dr. M. A. Scovill, Director of the Kentucky Agricultural Experiment Station, Dr. H. A. Weber, Professor of Agricultural Chemistry in the Ohio Agricultural College, Dr. H. W. Wiley, Chief of the Bureau of Chemistry of the United States Department of Agriculture. These five persons comprised the Committee on Food Standards of the Association of Official Agricultural Chemists. With them acted Dr. Richard Fischer, Chemist of the Wisconsin Dairy and Food Commission, who had been appointed by Mr. Wilson, the Secretary of Agriculture, under the provision of the law, quoted above, as an expert to assist in the formulation of standards. He in fact represented what was then called the Interstate Food Commission, which is now called the Association of State and National Food and Dairy Departments. Trans. 38.

It may be here stated that the Association of Official Agricultural Chemists consists of the chemists in the United States

Department of Agriculture and the various State Agricultural Experiment Stations, as well as the chemists in charge of the chemical work for the enforcement of state food laws. Trans. 88.

The Association of National Food and Dairy Departments consists of the food control officials of the United States. It includes dairy and food commissioners and the chemists of the dairy and food departments of the respective states. Trans. 87-88.

The Committee on Food Standards, constituted as above, after careful investigation, prepared the food standards under the above law, which were approved on June 26, 1906, and constitute Circular No. 19, which circular took the place of previous circulars on food standards, being circulars No. 10, dated Nov. 30, 1903, No. 13, dated Dec. 20, 1904, and No. 17, dated March 8, 1906. Trans. 72-73. The only difference between these previous circulars and Circular No. 19, in the definitions and standards promulgated, so far as these cases are concerned, is that in the previous circulars the use of the word "corn syrup" had been permitted as a synonym for commercial glucose. It was this latter circular that brought on the contest by the Corn Products Refining Company, the virtual defendant in these cases.

The report of the committee on Food Standards, constituted as above, was unanimous. The committee had been working along this line for several years, and Circular No. 19 represents their ultimate conclusions. Moreover, before submitting their work for the approval of the Secretary of Agriculture, they submitted the proposed standards "to the manufacturing firms and the trade immediately interested, and also to the State Food control officials for criticism." Trans. 441. In the letter to the Secretary of Agriculture transmitting their conclusions, which were subsequently approved and embodied in Circular No. 19, the committee states:

"The undersigned, representing the Association of Official Agricultural Chemists of the United States and the Interstate Food Commission, and commissioned by you, under authority given by the act of Congress approved March 3, 1903, to collaborate with you "to establish standards of purity for food products and to determine what are regarded as adulterations therein," respectfully report that they have carefully reviewed, in the light of recent investigations and correspondence, the standards earlier recommended by them and have prepared a set of amended schedules, in which certain changes have been introduced for the purpose of securing increased accuracy of expression and a more perfect correspondence of the chemical limits to the normal materials designated and from which standards previously proclaimed for several manufactured articles have been omitted because of the unsatisfactory condition of trade nomenclature as applied thereto; * * * They respectfully recommend that the standards herewith submitted be approved and proclaimed as the established standards, superseding and supplementing those established on December 20, 1904, and March 8, 1906."

One would suppose that the findings of this committee, selected as they were for their special knowledge, should be quite as persuasive as to the proper term to be applied to commercial glucose, as the findings of the three secretaries so much relied upon by counsel for defendants.

DEFINITIONS AS DECLARED IN CIRCULAR NO. 19, OF GLUCOSE, ETC.

The definitions contained in Circular No. 19, so far as material to the issues before the court in these cases, are as follows:

Glucose defined: "Glucose, mixing glucose, confectioner's glucose, is a thick, sirupy, colorless product made by incompletely hydrolizing starch, or a starch-containing substance, and decolorizing and evaporating the product. (Then follows statement as to density, temperature, etc.) It contains on a basis of forty-one (41) degrees Baumé, not more than

one (1) per cent of ash, consisting chiefly of chlorids and sulphates." Trans. 442.

It is to be remembered that the above is a definition of the product known commonly as glucose. So understood, it is the testimony of Dr. Fischer, aside from the standards established by the committee, that the above is a correct definition. Trans. 38-39. Indeed we do not understand that any claim is made by the defendants that the above is not a correct definition of commercial, unmixed glucose. The definition does not go into the chemical composition of the product. Trans. 39. This will be considered later.

Starch Sugar defined: "Starch sugar is the solid product made by hydrolizing starch or a starch-containing substance until the greater part of the starch is converted into dextrose. Starch sugar appears in commerce in two forms, anhydrous starch sugar and hydrous starch sugar." (Then follows a definition of the two forms of this sugar.) Trans. 442.

Molasses is defined as "the product left after separating the sugar from the massecuite, melada, mush sugar, or concrete, and contains not more than twenty-five (25) per cent of water, and not more than five (5) per cent of ash." Trans. 441.

Refiners' Syrup or Treacle, is defined as "the residual liquid product obtained in the process of refining raw sugars and contains not more than twenty-five (25) per cent of water, and not more than eight (8) per cent of ash." Trans. 441.

"Syrup is the sound product made by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar." Trans. 441.

Sugar Cane Syrup is defined as a "syrup made by the evaporation of the juice of the sugar cane or by the solution of sugar cane concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash." Trans. 441-442.

Sorghum Syrup is defined as a "syrup made by the evaporation of sorghum juice and by the solution of sorghum concrete, and contains not more than thirty (30) per cent of water, and not more than two and five-tenths (2.5) per cent of ash." Trans. 442.

Maple Syrup is defined as a "syrup made by the evaporation of maple sap or by the solution of maple concrete, and contains not more than thirty-two (32) per cent of water and not less than forty-five hundredths (0.45) per cent of maple syrup ash." Trans. 442.

Sugar Syrup is defined as "the product made by dissolving sugar to the consistence of a syrup and contains not more than thirty-five (35) per cent of water." Trans. 442.

3. Glucose, starch sugar, etc., chemically considered.

It may aid the court in determining whether the definitions as stated in circular No. 19 rest upon rational and inherent distinctions in the different articles of food involved in this case, to state briefly the chemical constituents of these different substances. We do not mean by this that a definition for the purpose of a pure food law, must necessarily be consistent with what might be understood by the term as used in chemistry. All such laws have to deal with practical matters, and practical terms may be used in a sense different from what they would be used by a chemist. In the present case, however, the definitions involved are, we submit, under the evidence, in keeping with practical knowledge and common usage as well as with the principles of chemistry.

Commercial Glucose:

Chemically considered, commercial glucose consists of a solution in water of dextrose, destrin and maltose in somewhat varying proportions, together with a small amount of inorganic matter. The proportions of these ingredients have been found to vary as follows:

Dextrin	29.8 to 45.3%
Maltose	4.6 to 19.3%
Dextrose	34.3 to 36.5%, or 42.8
Mineral matter (ash)	0.32 to 0.52%, or 1.06
Water	14.2 to 17.2%, or 22.6
	Trans 39-40.

As is seen by reference to the testimony, the above percentages are given by Leach in his book on Food Inspection and Analysis, and by the report on glucose of the committee appointed to investigate that article by the National Academy of Sciences in 1883.

Of the three substances making up commercial glucose, dextrin, dextrose and maltose, the last two, dextrose and maltose alone are true sugars, while dextrin is not a sugar at all. Trans. 40, 217. True sugars are a part of a class of organic substances known as carbohydrates. They are characterized by being crystallizable and as having a sweet taste and some similar chemical properties. They are all more or less closely allied to one another. Trans. 40-41.

Dextrin, on the other hand, has neither the chemical nor physical properties of a sugar. It is the intermediate product between starch and starch sugar, or, as it is commonly called in this country, grape-sugar. It approximates gum more than it does sugar, and one of the terms under which it is known commercially is British Gum. It is not sweet, and although a wholesome food, is not palatable. Trans. 40, 85. It is recognized in the national formulary, an official standard for drugs, as mucilage of dextrin. Trans. 40, 82. Indeed the ordinary mucilage of commerce is a solution of dextrin in water. Trans. 82.

In the Grady sample, in this case, the analysis showed by two different methods used, 25.3 or 23.6% of dextrin. In the McDermott sample, the analysis showed 26.06 or 24% of dextrin. These percentages refer to the mixed product. The unmixed glucose used in preparing the articles which were sold is almost one-fifth greater, so that in the Grady sample there was 35.4 of mucilage of dextrin, and in the McDermott sample 36% of mucilage or dextrin. Trans. 54. As stated by Dr. Fischer: "Dextrin can in no sense be regarded as a sugar, either chemically, or physically, or organoleptically." Trans. 55. This is also the testimony of Dr. Chandler.

Dr. Chandler states and describes the elements that enter into the article known as commercial glucose as follows:

Dextrin, Maltose and Dextrose. Maltose and dextrose are sugars. Dextrin is a gum. Dextrin may be converted into dextrose. Dextrin is the first result of the transformation of starch in the process of making sugar from starch. Dextrose is the final product, and if the process of treatment is continued long enough the dextrin and maltose will be converted into dextrose. If the process is interrupted in an intermediate stage, then there will be a certain percentage of maltose, not yet converted into dextrose. Trans. 217.

Dextrose, one of the other elements of commercial glucose, is also known as grape-sugar, being a normal constituent of grapes, and therefore of raisins. It is the sugar that crystallizes in raisins, and is normally present in honey. Dextrose is also present in all acid fruit and can also be produced by the action of acids upon cellulose, and therefore upon sawdust. Trans. 40, 93.

It should be remembered that the term dextrose, wherever used, has but one meaning, both commercially and chemically. It means a particular sugar, and it is also known as dextro-glucose, being one of the class of sugars known as glucoses.

Levulose: Another member of the class of sugars known as glucose is levulose, or, as it is also called, levo-glucose. It is a sugar that is contained, together with dextrose, in honey, in many acid fruits, and is produced, together with dextrose, in the inversion of sucrose, and can be produced also by the action of acid on inulin. Another common name for it is left handed sugar. Trans. 49.

Neither dextrose nor maltose are nearly as sweet as cane sugar or sugar produced from the beet or from the maple. Grape-sugar is said to be three-fifths as sweet as cane sugar. Trans. 41. It needs to be remembered that grape-sugar contains practically no dextrin, which comprises substantially one-third of commercial glucose. Hence, the sweetness of com-

mercial glucose as compared with cane sugar is not more than three-tenths.

Sucrose: This is a sugar of a definite chemical formula and composition, which is contained in the juice of all sugar and syrup producing plants, such as cane, maple sugar, beet, maize stalk, etc. It appears commercially in the form of rock candy, granulated sugar, loaf and powdered sugar. Very frequently the term cane sugar is applied to sugars independent of the source, that is, independent of whether it comes from the beet or the cane or sorghum. The sugar from all these sources, when sufficiently purified, is identical. Trans. 183-184. Cane sugar and its products of inversion are the only sugars contained in fruits and in sugar producing plants.

Invert Sugar: This is a mixture of equal parts of the sugars, dextrose and levulose, which is originally produced by the action of acids or ferments upon cane sugar. It is contained in small amounts in syrups and in large amounts in acid fruits, primarily as a result of the change in cane sugar, otherwise what is known as inversion of cane sugar. Trans. 182.

DICTIONARY DEFINITIONS OF GLUCOSE.

Century Dictionary:

1. "The name of a group of sugars having the formula $C_6H_{12}O_6$." This definition is followed by a brief discussion of the chemistry of glucose.

2. "In commerce the sugar syrup obtained by the conversion of starch into sugar by sulphuric acid." Trans. 93.

Note that the use of the term "sugar syrup" in the above definition is faulty, or at least the name "sugar syrup" is very loosely applied, since "sugar syrup" is defined in the same dictionary as follows:

First: The raw juice or sap of sugar-producing plants, roots or trees.

Second: In the manufacturing or refining of sugar a more or less concentrated solution of sugar." Trans. 184-185, 197.

Standard Dictionary:

"A sugar found largely in the vegetable kingdom and in honey, also in the animal kingdom as in the blood, liver, urine. It is the principal member of the group to which it gives its name, and is much less sweet than cane sugar. It is made commercially by treating starch with diluted sulphuric acid, and the resulting solid product is called grape sugar and syrup glucose." Trans. 93-94.

Webster's International Dictionary, 1906:

After giving the scientific definition for the individual sugar glucose and the class of sugars called glucose, gives the following:

"The trade name of a syrup obtained as an uncrytalizable residue in the manufacture of glucose proper, and containing in addition to some dextrose or glucose, also maltose, dextrin, etc. It is used as a chief adulterant of syrups, beers," etc. Trans. 94.

Counsel is in error in stating at page 59 of his brief that Dr. Fischer did not agree with these dictionary definitions of glucose.

Double meaning of Glucose: As before stated, both dextrose and levulose are sometimes called glucose, being members of the class of sugars of the composition of $C_6H_{12}O_6$, all of which are known as glucoses. Because dextrose or dextro-glucose is the most valuable constituent of commercial glucose, the name glucose was given to commercial glucose early in its history and this name has been retained in this country to the present time. Yet, chemically speaking, it is also correct to use the term glucose for dextrose or for levulose, or for a mixture of the two, that is, invert sugar, and it is necessary to keep in mind the distinction between glucose commercially speaking, and glucose chemically speaking. This was not done evidently in the testimony of Dr. Chandler. As an example of his confusion of terms, see Trans. 216-217. One might infer from this testimony that commercial glucose is found in maple sugar. Such, however, is not the fact. Most of this testimony refers to

dextrose, which of course is, chemically speaking, a glucose, but is not commercial glucose, the article under investigation.

Elements of the grain corn, not contained in commercial glucose:

The testimony of Dr. Fischer on this subject is uncontradicted, and is as follows: The grain of corn is made up as follows: Of moisture, 13.35%; of fibre, 1.67%. Fibre is cellulose corresponding to wood fibre in chemical composition and contains no nutritive element. It goes into the bran, one of the by-products in the manufacture of glucose, but bran contains a part of the protein substances, as high as 14%.

The next element is gluten, making up 10.17%. This is pure protein. It is a nitrogenous substance and is the muscle building part of the corn. Starch does not build up muscle. It only produces fat and affords heat and energy to the system.

The next element in the corn is oil, comprising .58%. This comes from the embryo or germ of the kernel, the yellow part which is found in the center, and is made into corn oil, used largely as an adulterant for oils, and is also made into oil cake used as a cattle food.

The next element is what is known as ash, of which 1.40% is present. A certain amount of ash constituents is absolutely essential to nutrition, and the ash of all grains is high in phosphates which are especially important. In part they are the bone-building constituents of a food, although they serve other important purposes.

The remaining important element in the corn is starch, making up 68.63%.

There is neither in the starch nor in the product manufactured from it, commercial glucose, any of the other above elements, fibre, gluten, oil or ash. The aim is to remove all of these elements as perfectly as possible. The more perfectly they are removed the better the form of the starch which is secured. The starch that they produce runs as a rule over

99% of pure starch excluding the moisture. Trans. 188-190.

Dr. Fischer, on being asked what he thought of the statement that the article "glucose" contained all of the essence of corn as a grain, answered:

"I should say that it is false and misleading to say that glucose contains all of the elements of the corn as a grain. When you eat corn bread or corn meal you get all of these other elements." Trans. 190.

Dr. Chandler, speaking on this subject, says:

"Of course none of these substances (those that enter into commercial glucose) contain nitrogen, and consequently none of them can be employed in the animal economy for producing muscle, nerves or brain. They are fat producers and heat producers, and not energy producers." Trans. 225.

The National Academy Report at p. 76, speaking of the uses to which glucose is put as a substitute for barley malt in the brewing of ale or beer, states:

"This is really a substitute of Indian corn for barley; but it constitutes a very imperfect substitute, as the corn by the treatment employed in extracting its starch for conversion into glucose is completely deprived of all the nitrogenous bodies and mineral salts which it originally contained. Hence the glucose alone, which is simply transformed starch, is substituted for the entire barley grain with its great variety of valuable constituents." Trans. 191.

It needs to be remembered that Dr. Chandler was one of the committee that signed the above statement in 1884.

4. Commercial glucose is manufactured from starch.

One of the surprises of the prosecution in this case was the attempt on the part of the two leading witnesses for the defense, Doctors Chandler and Wagner, to establish the proposition that commercial glucose was not made from starch. We are confident in the assertion that this is the first time since the beginning of the manufacture of commercial glucose that any such attempt was ever made. No such distinction can be

found in any published book, document or paper. So far as we have been able to discover, no such attempt was ever made in any trial before any court, or in any hearing before any committee or body of men who were called upon to deal with this subject.

Dr. Chandler, as well as Dr. Wagner, are on record, as the testimony shows, in this case, against any such theory or contention. In the academy report, so often referred to upon the trial, published in 1884, Dr. Chandler, together with the other four eminent gentlemen associated with him, signed a report which is clearly opposed to the position now taken by the witness. In that report, at p. 70, speaking of the methods pursued in the manufacture of commercial glucose, is the following:

The water from the shakers holding the starch in suspension is run either directly upon the tables or into wooden vats where the starch settles and the water is drawn off and discarded. The starch is next thoroughly agitated with fresh water, to which a small quantity of caustic soda, or carbonate of soda, has been added. The object of adding the alkali was to dissolve and remove the gluten and other albuminoids, oil, etc. . . . The starch is next shoveled up from the runs and mixed with water, and then again allowed to settle. The water is drawn off, and the washing repeated sometimes with a slight addition of hydrochloric acid; finally the thoroughly purified starch is mixed with the proper amount of water for the converter. Trans. 247-248.

The only explanation Dr. Chandler could make, on having his attention called to the above, was, that at the present time a different method was employed in the manufacture of commercial glucose, but the result is the same. "The starch is the same. Q. The difference being the small amount of impurities left in it in one case and not in the other? A. Yes, that I have already stated. Q. It's the only product left ultimately, coming from the starch itself, that is intended to go into the glucose, freed from these impurities? A. Yes." Trans. 248.

The witness was further compelled to admit that the only difference between the method described in the academy report in 1884 and the present method, consisted in the fact that under the old method they removed the impurities before treating starch with acid, while under the present method they removed the impurities after such treatment. But, as stated by the witness, "commercial glucose comes from the impure starch that was used to make it," and the "dextrin comes from the starch also," and the "maltose comes from the starch." Trans. 249.

The testimony of Dr. Wagner is in keeping with that of Dr. Chandler. Trans. 286-287, 397-399, 403-404.

Here Dr. Wagner admits that the only difference between starch from which commercial glucose is made and laundry or corn starch so-called, is that in the former the starch is suspended in water in what he terms a milk, at the time the acid is applied, while in the manufacture of laundry starch or corn starch for table use the starch is dried. But he admits that "the glucose comes from the starch that was in the suspended product" and "not from the impurities," and that the "starch of the corn is the raw material for both." Trans. 398-399, Case 282-283.

Commercial glucose can be made from any starch:

This proposition is sustained by all of the testimony. Dr. Fischer states that while commercial glucose can be made from any starch, whether coming from tapioca, corn, potatoes, etc., yet it is made almost exclusively, if not exclusively, at the present time in this country from corn starch, and that in Europe it is made largely from potato starch; and that there would be no appreciable difference between glucose, whether made from the starch of corn or from the starch of potatoes. Trans. 42.

Dr. Chandler was compelled to admit that he had never been able to determine by any analysis that he had ever made

whether commercial glucose in any particular case was manufactured from the starch of any particular plant. After making such admission, he then sought, as was his habit, to hedge by stating that he could not say but what there might be some flavor incident to glucose made from starch, and this too after he had stated that glucose was a colorless, characterless product with no distinctive flavor. Trans. 249-250. He was unable to give any authority either in this country or in any other country for the statement that he thought there might be a difference in the character of glucose that is made from the starch coming from the different kinds of grain or different sources. Trans. 250.

The fact that commercial glucose may be made from any starch, and that it is impossible to determine by any analysis from what particular starch it is made, has an important bearing on the question, considered later, whether it is proper to designate commercial glucose mixed with a small percentage of refiners' syrup as "corn syrup." It is admitted that in Germany almost all commercial glucose is made from the starch of potatoes, and Dr. Chandler states that such commercial glucose is sometimes made in Europe from the starch of sago, rice, tapioca. Trans. 209. Commercial glucose may be and undoubtedly is imported from Germany into this country. Moreover, it is not at all improbable that in the near future commercial glucose may be manufactured throughout large sections of this country from the starch of potatoes rather than from the starch of corn.

5. True syrups, their constituents and characteristics.

While there is no disagreement in the testimony upon the correct definition of commercial glucose, there is conflict as to the true meaning of the term "syrup," and whether it is proper to designate commercial glucose as a "syrup." The State contends that a true syrup "is the sound product made

by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar," while the defendants contend that any substance is properly termed a syrup that has a "viscid consistency," and has a "sugar" or sweet taste, even though it is made from starch and contains, as does commercial glucose, an ingredient that has no sweetness, such an ingredient making up from 30 to 45% of the article. Undoubtedly, in a general loose sense, any substance of a viscid consistency, may be said to be a syrup, or of a syrupy nature, but such a meaning applied to the term syrup could have no practical value either in the construction or enforcement of a pure food law. It would include honey, mucilage of acacia, concentrated phosphoric acid, glycerine, etc.

(1) *Dictionary definitions considered.*

The Century Dictionary defines a syrup "1. In medicine, a solution of sugar in water, made according to an official formula whether simply flavored or medicated with some special therapeutic or compound." "2. The uncrystallizable fluid finally separated from crystallized sugar in the refining process, either by the draining of sugar in loaves or by being forcibly ejected by the centrifugal apparatus in preparing moist sugar. This is the ordinary or 'golden syrup' of grocers, but in the sugar manufacture, the term syrup is applied to all strong saccharine solutions which contain sugar capable of being crystallized out, the ultimate crystallization fluid being distinguished as molasses or treacle."

The Standard Dictionary defines a syrup first as "a thick, sweet liquid," and then states "Specifically: 1. A saturated solution of sugar in water, often combined with some substance or flavors, as with the juice of fruits for use in confectioner's cookery, for the preparation of beverages." "2. The uncrystallizable portion of any saccharine substance, as sugar cane juice, separated from the crystallizable sugar during the process of sugar boiling or that which drains from sugar in the

process of separating and refining, called molasses by planters." "3. The condensed cane juice before separation of the crystallizable sugar; so called specifically by planters."

Webster's International Dictionary of 1906 defines syrup "1. A thick and viscid liquid made from the juice of fruits, herbs, etc., boiled with sugar." "2. A thick and viscid saccharine solution of superior quality (as sugar house syrup); specifically, in pharmacy and often in cookery, a saturated solution of sugar and water (simple syrup) or such a solution flavored and medicated." Trans. 93-94.

From the above definitions it will be seen that commercial glucose does not correspond to a single one of the substances to which the lexicographers attach the name syrup. Apparently, as far as the meaning of the term, as given in the dictionaries, is concerned, the term syrup cannot properly be applied to a food product of the character of glucose.

(2) *What is commonly understood by the term syrup as a food product.*

The ordinary consumer understands by the term syrup the product obtained by the boiling down, or evaporating, of the juice or sap obtained from plants like the cane, the maple, the sorghum, or perhaps the maize. Trans. 196. And, as testified to by Dr. Fischer, when a person calls for and purchases syrup, he thinks he is "getting the concentrated juice of a sugar-producing plant." Trans. 199-200.

The difference between this true syrup such as the cane, the sorghum, the maple, depends mainly upon the characteristic flavor, which is dependent on the source and is characteristic of the source. Trans. 183-184, 196-199. That is, each of these syrups has an agreeable, ethereal odor, characteristic of its origin, an aromatic, highly agreeable flavor, due to the presence, as it is sometimes stated, of certain compounds in minute quantities, and entirely distinct from the pure sweet taste of the sugar. Thus, each of these true syrups is distin-

guished by certain organoleptic qualities which give it its chief food and commercial value. For instance, maple syrup owes its high value to minute quantities of such components, so small in amount as to be unweighable, it is true, and incapable of expression in percentage of composition.

The argument of counsel (p. 65 of brief) that one purchasing a true syrup gives heed only to its sweetness and consistency, is contrary to common experience and to the great weight of the testimony.

These true syrups, maple syrup, cane syrup and sorghum syrup, are, as shown by the evidence in this case, the only classes of unmixed or uncompounded food products to which the term syrup is applied in common use for a food product to be used upon the table.

Commercial glucose, unlike these true syrups, does not contain any cane sugar or sucrose; nor does it contain any levulose, a certain quantity of which is always present in true syrups and is formed by the inversion of a small quantity of sucrose. Trans. 184. On the other hand, commercial glucose contains both maltose and dextrin, while true syrups contain neither maltose nor dextrin. Trans. 184.

All of the true syrups, defined in Circular No. 19, contain "sucrose" as their main ingredient, while commercial glucose does not, as conceded even by Dr. Chandler, contain any sucrose. Trans. 270. After considerable hesitation, Dr. Chandler further testified that all of the syrups mentioned and defined in Circular No. 19 are "characterized by the absence of dextrin," and that dextrin "is present in commercial glucose in large quantities." Trans. 271.

(3) *Dextrin, presence of in syrup, objectionable.*

It is conceded in this case that one of the largest, if not the largest single element in commercial glucose, is dextrin; that this element is not a sugar, but a gum of the nature of mucilage. Trans. 54. This is even conceded by Dr. Chandler, who

states that "dextrin is a gum." Trans. 217. It is further conceded that this element is not sweet and is not palatable, and that it is never found in any of the true syrups. Hence, just to the extent that it is being used as a part of any so-called table syrup, just to that extent is such syrup adulterated by the mixture of an article or element not only inferior in quality, but containing none of the characteristics of a sugar or syrup. This is recognized in the Academy Report, where, speaking of the process of the manufacture of grape sugar and glucose, it says:

"The extent of the transformation is dependent upon the strength of the acid, the temperature, and the time during which the heating is continued. The intermediate products are chiefly maltose and dextrin, which may be present in greater or smaller quantities according to the way the process is carried out. *If the product is to be used in the form of syrup, then the presence of dextrin is objectionable, as it has no sweetening power, though it does not produce injurious effects upon the system.*" Trans. 253.

And further on the report, after stating the analysis of the elements entering into commercial glucose, and that the same were not injurious when taken into the system, adds, "though as above stated, the dextrin has no sweetening power and hence it *has no value as a constituent of table syrup or sugar.*" Trans. 255.

Here is a specific finding by this learned committee in 1884, that dextrin, comprising from 30% to 45% of commercial glucose, had "no value as a constituent of table syrup," and that if the article glucose is to be used in the form of a syrup, "the presence of dextrin was objectionable."

Whatever may be said of Dr. Chandler, no one will question his shrewdness and ability to anticipate the questions that might be put to him as an expert on cross-examination. The task which he undertook in this case was, however, made quite difficult by reason of the numerous occasions upon which he had put himself on record contrary to the testimony he

found necessary to produce in this case. Hence, knowing full well that the Academy Report contained the above passage, he sought, in his direct examination, to prepare the way for the testimony that was to follow by stating that at the time of the preparation of this report it was not known that in the making of commercial glucose dextrin was an essential element. The members of this learned committee were not aware, as late as 1884, as stated by Dr. Chandler, that the presence of dextrin was essential.

"But later I learned that in putting liquid glucose on the market it was found that the entire mass solidified in the barrel and when the dealer attempted to draw glucose from his barrel nothing run out. That was investigated and it was found that by leaving in the glucose a certain percentage of the dextrin the crystallization of the dextrose was prevented, and it was found necessary to have dextrin in the glucose, otherwise it would not remain a syrup but would solidify." Trans. 218.

The above is but one of many examples in the testimony of Dr. Chandler showing how far he was willing to go in the service of his client, The Corn Products Refining Company.

In considering this testimony, one needs to remember, not only that, prior to 1884, commercial glucose had been manufactured and sold in European countries and in this country for nearly a century, but also the practical knowledge and experience of Dr. Chandler as detailed by himself. As early as from 1854 to 1856, he was in attendance upon German universities, making special "quantitative determinations of glucose" in laboratories, and from that time he gave "particular attention" to glucose in "his laboratory work." As early as 1857, students in his laboratory "prepared glucose, experimented with glucose." Later, in the College of Physicians and Surgeons, some two hundred medical students were under Dr. Chandler's instruction and "*each medical student was required to prepare starch, to prepare dextrin, to prepare*

glucose, and subject this substance to various tests and experiments in order to ascertain their character." Later, and in 1868, Dr. Chandler became head chemist of a sugar refining company and, as such, was in 1869 sent to Europe for study, and while in Paris on said trip he "visited a glucose factory where they manufactured glucose from potatoes and where they made a syrup, potato syrup, which was flavored with cane syrup, that is, with refiners' syrup." In 1872, to use his own language, he "visited glucose factories and saw the whole performance." Trans. 206-207.

In giving this testimony as to his ignorance of the constituents of commercial glucose in 1884, Dr. Chandler evidently forgot the following bit of testimony:

"In my early experience at home I have often seen my mother empty a jar of preserves into a kettle, because she said they had candied. The dextro-glucose had crystallized out and the preserves had to be treated in the kettle in order to dissolve the crystals of dextrose and bring them into solution. * * * Honey contains this sugar, and it often behaves like the preserves and becomes thick and almost solid by the crystallization of the dextrose." Trans. 216.

This demonstrates that Dr. Chandler knew, long prior to the Academy Report in 1884, that dextrose is not very soluble in water and would crystallize out from concentrated solutions, unless crystallization was prevented by some non-sugar, like dextrin.

Of course, if Dr. Chandler was so grossly ignorant of the elements entering into the article, commercial glucose, so likewise were the distinguished gentlemen who co-labored with him, for example, Dr. Remsen, now president of Johns Hopkins University, and conceded by Dr. Chandler to be one of the most eminent chemists in this country at this time. In answer to the question as to whether he desired to state that so eminent a chemist was, at the time he signed this report, ignorant of the fact that dextrin was an essential element of

commercial glucose, Dr. Chandler replied, "I do; I don't think that fact appears in a book that was accessible to any of us at that time." Trans. 252.

In 1881, two years prior to the investigation which ended in the Academy Report, a book was published entitled, "A Practical Treatise on Manufacture of Starch, Glucose, Starch Sugar and Dextrin," originally written in German by Wagner, but adapted to American conditions by Frankel and Hutner, the latter being a proprietor of the Philadelphia Starch Sugar Works. Dr. Chandler testified that he thought he owned this book. Trans. 238. This book must have been fresh in the minds of this Academy Committee at the time of its investigation. In fact, it was the only book published in America on the subject of the manufacture of glucose. Under the head of the "manufacture of glucose and starch sugar from starch," at p. 196, of this book, is found the following statement:

"From this syrup no solid sugar will separate, since its ability to crystallize is checked by the presence of dextrin." Trans. 258.

Hence, notwithstanding Dr. Chandler's declaration of ignorance, it is satisfactorily established in this case that in 1884 the five learned gentlemen (Trans. 208) who prepared this Academy Report, after a most thorough and exhaustive investigation, condemned the use of commercial glucose as a syrup, for the reason that one of its constituent elements, dextrin, "*has no sweetening power, and hence has no value as a constituent of table syrups.*" And yet counsel assumes to rely upon this Academy Report as authority for the use of the term "corn syrup."

(4) *Definition of syrup by Dr. Chandler considered.*

It is to be remembered that Dr. Chandler, as shown by the evidence, acted as the retained expert of the Corn Products Refining Company in its contest before the Food and Drug Inspection Board at Washington, and also before Secretary

Wilson at the hearing on Dec. 7, 1907, commented upon later; that in this capacity he sent a formal letter to various chemists in different parts of the country, the object being to elicit from them favorable answers to the question as to whether or not commercial glucose could be considered a syrup, and also whether it could properly be designated as corn syrup. The various answers, so far as given, with two exceptions, were collected and printed by Dr. Chandler in a pamphlet published by the Corn Products Refining Company under the title, "Copies of Opinions of Chemists and others on the meaning of the word 'syrup' and the use of the term 'corn syrup' under the Food and Drug Act of 1906." This pamphlet was submitted by Dr. Chandler on behalf of the Corn Products Refining Company at the hearing before the Food and Drug Inspection Board and the Secretary of Agriculture at Washington. A considerable portion of this pamphlet consists of a brief prepared by Professor Chandler for his client in support of its contention that commercial glucose should be properly designated as "syrup" or "corn syrup." In this brief Professor Chandler defines syrup as,

"Any thick, sweet liquid is a syrup no matter what kind of sugar it contains. It might contain either one of the following sugars or contain two or more of them at the same time." Trans. 242.

He then enumerates a number of sugars, cane sugar, dextrose, levulose, maltose, milk sugar, and then adds:

"A thick, sweet solution of any one or more of the above sugars would constitute a syrup in the proper acceptance and use of the word syrup. The term 'syrup' conveys a definite and familiar idea to all consumers as a thick, sweet liquid containing sugar." Trans. 242-243.

Upon the trial of these cases Dr. Chandler, on being asked whether "syrup" was a proper name to be applied to commercial glucose, replied that it was, for the reason that it was "a thick solution of sugar. And that is what a syrup is." "It has

been customary from my memory to call a thick solution of sugar, whether it contains sugar alone or whether other substances are associated with it, it has been customary to call it syrup." Trans. 215.

The looseness and absolute uselessness of any such definition as the above, is well illustrated in the cross examination of Dr. Chandler. See especially Trans. 240-245. Here is a bit of testimony:

"Q. Anything that is eaten, then, that is of a thick, liquid substance, if it is sweet, is a syrup? A. If it is substantially sugar, yes. Q. Well, then honey would be a syrup? A. In a certain sense, yes. Q. That would come within your definition? A. I think it would." Trans. 243.

And this is the definition the learned counsel for the defendants is contending for!

As well stated by Dr. Fischer, speaking of this definition of Dr. Chandler, such definition would include honey, extract of malt, condensed milk, and mucilage of acacia with a small percentage of any sugar, also glycerine mixed with a small quantity of simple syrup. Trans. 423.

There is no question but what, in a loose sense, the word syrup, as stated above, may be used to cover any thick, viscid body, and in a loose sense a thick liquid may be characterized as a syrup or as syrupy, without reference to its use as a food. The term syrup is also used in medicinal preparations in various ways. These meanings of the word syrup are, however, properly excluded from the discussion of the term as a food product. As very well stated by Dr. Fischer:

"I believe that for food purposes the term syrup should be restricted to the concentrated sap of sugar-producing plants. I believe that that is the common understanding of the public of the word syrup, the consuming public; although, as stated before, the term syrup is used in chemistry and technically, sometimes even so broadly as to include any thick liquid. Thus in chemistry we speak of substances as syrupy that could not by any means be used as food prod-

ucts. For example, concentrated phosphoric acid, containing eighty-five per cent of phosphoric acid, is known as syrupy phosphoric acid. And if the definition of syrup is to include any thick sweet liquid, then glycerine ought to come under the head of syrup. Then again the ordinary dictionary definitions, the definitions found in such dictionaries as Webster's International, the Century and the Standard, with one exception, restrict the word syrup to saccharine solutions and solutions that do not contain any such substances as dextrin in large proportions, and in that one exception, which is the Standard dictionary, the definition for syrup is first given as a thick sweet liquid; then specifically, under 1, 2 and 3, the definition follows which restricts the word syrup to saccharine solutions." Trans. 50-51.

It would seem unnecessary to argue that any such definition as given by Dr. Chandler, and as contended for by the learned counsel for defendants, would be absolutely useless in any pure food law. Trans. 55. The words describing different food products in such laws must be precise and definite in their meaning and not left to convey some loose, general idea. Perhaps no better illustration can be found than that given by Dr. Fischer in his testimony with reference to the definition of milk as found in the pure food laws of the different states. Trans. 55. It is here shown that while milk is defined in the dictionaries "as the secretions of the mammary glands of female mammals," and further "as including anything having the appearance of milk," yet in fixing the definition for milk as a food product the term, as stated by Dr. Fischer, "can fairly be restricted to cow's milk, and not only to cow's milk but to milk from healthy cows, and to milk of a certain quality, containing a certain minimum of fat and of solids, and further restricted to milk that was produced within a certain time, that is excepting that produced within a certain time before and after calving."

It is interesting here to note the statutory definition and standard in Wisconsin, of milk, as found in sub-division 5, section 4601-4a, p. 1047, laws 1909, as follows:

"Milk is the fresh and clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within eight days before and four days after calving, and contains not less than eight and one-half (8.5) per cent of solids not fat, and not less than three per cent of milk fat."

Then follows in the same section appropriate definitions and standards of (1) modified milk, (2) skim milk, (3) pasteurized milk, (4) sterilized milk, (5) evaporated milk, (6) condensed milk, (7) condensed skim milk, (8) buttermilk, (9) goats' milk, ewes' milk, et cetera.

The foregoing is an illustration of the necessity in the execution of pure food laws, that proper definitions and standards be fixed, if the law is to be efficient or serve any useful purpose.

(5) *The opinions of other so-called experts as to the meaning of the term syrup.*

These opinions secured from chemists by Dr. Chandler in the manner above stated were, so far as counsel for defendant desired, introduced and received in evidence in this case and a portion of them are printed as exhibits. Trans. 457-460. It is conceded, even by Dr. Chandler, that only two of the persons giving an opinion on the subject in question were food chemists, or had any experience in enforcing food laws, the two being Dr. Chandler and Dr. Lederle. Trans. 425. These other gentlemen, not being food chemists and having no experience in the framing and enforcement of food laws, cannot be said to be qualified to testify as experts on the subject under discussion. An expert is one who has acquired expert knowledge by experience and actual work with the matters concerning which he gives an opinion. The point upon which expert opinion was desired from these gentlemen was whether, under the Food & Drugs Act "corn syrup" was a correct name for commercial glucose. In order to qualify as an expert to give an opinion

on such a subject, it is necessary to have had experience in that line. Hence, aside from the testimony of Dr. Chandler (who was the only one that has expressed his opinion under oath) and Dr. Lederle, these opinions expressed in letters and hence unsworn testimony in character, are practically of no value. Moreover, it is a significant fact that counsel for the defendants in this case declined to put in evidence the opinion of Dr. Lederle, the only other food chemist aside from Dr. Chandler among the list. He had also had practical experience as president of the New York Board of Health. He, however, did not agree with Dr. Chandler in his definition of corn syrup. Trans. 424. Nor did the defendants offer in evidence the opinion of William H. Brewer, Professor at Yale, and one of the committee who prepared the Academy Report. Trans. 425.

Dr. Chandler, when asked to state the number of Food-Control chemists he had consulted for their opinion as to the use of the term "corn syrup," replied: "We didn't consider their opinions reliable." Trans. 260. And the reason he gave as to the unreliability of such opinions was that whenever Dr. Wiley took snuff all such food-control chemists sneezed. Trans. 273.

It is hardly necessary to spend time in discussing the opinions of the other chemists, none of whom were qualified to speak as experts on the subject under discussion. We cite the court to the analysis of all of this testimony given by Dr. Fischer (Trans. 423-427) and call attention, as illustrative of this whole class of testimony, to that given by Marsten T. Bogert, in which he states:

"The designation 'corn syrup,' therefore, for the thick, sweet liquid obtained by the action of acids upon corn starch is in no sense a misnomer. It conveys a perfectly truthful meaning—that of a thick, sweet liquid produced in some way from corn, and it would be so understood by the general public." Trans. 425.

The above language is quoted by counsel for defendants at page 63 of the brief. Dr. Fischer gives the following analysis of this definition and opinion of Professor Bogert:

"I would consider it absolutely worthless.

"First of all, taking the first definition, somewhat more restricted, as applying to any thick, sweet liquid, it would include extract of malt, condensed milk, and even glycerine; while in the broader sense that he gives later, 'any liquid of syrupy consistency,' he would have to include even syrupy phosphoric acid, or you could include it. He also says that the term 'corn syrup' conveys a perfectly truthful meaning, that of a thick, sweet liquid, produced in some way from corn, and that it would be so understood by the general public. My opinion is that the general public have in mind a specific way in which it is produced from corn, namely, it would associate this method of manufacture with a method of manufacture of sorghum or of maple, with which most people in this state, I believe, are more or less familiar. And if he says that 'corn syrup' could be applied to a thick, sweet liquid produced from corn, even making it more specific, treating a part of the corn, the starch, the greater percentage, with an acid in the manufacture of glucose and term that 'corn syrup,' then it would be just as correct to take the greater part of the maple wood, cellulose, treat that with sulphuric acid, which the evidence shows will produce also glucose, take this sweet liquid so prepared and call it maple syrup, because this would be also 'a thick, sweet liquid' produced in a similar way as glucose is from corn, from the maple tree." Trans. 426.

Counsel also quotes from the opinion of Walker S. Haines, and from that of Professor Mallett, at page 64 of the brief. See Dr. Fischer's analysis of these opinions. Trans. 426-427. The latter opinion, as stated by Dr. Fischer, is the same as that of Professor Chandler and "would include malt extract and honey and sweetened condensed milk, the mixture of mucilage of acacia and sugar." Trans. 427.

(6) *Dr. Chandler's criticism of the definition of syrup as found in Circular No. 19.*

On having his attention called to the definition of syrup as found in Circular No. 19, Dr. Chandler testified that it was a new departure in the English language; that such a definition was never known of syrup "until it was put forth by Dr. Wiley at Washington, and put into this bulletin of standards, and it does not correspond to the English language or the custom or commercial usage for one hundred years in the English language or the German language." Trans. 223.

At first Dr. Chandler testified that the word syrup as defined in Circular No. 19 would include no other syrup than maple syrup. Later he conceded, on direct examination, that it would include sorghum. Trans. 223. On cross examination he conceded that it would also include cane syrup, if made from cane, and also syrup made from the stalk of corn. Trans. 269.

"Will you name any syrup that it (the definition contained in circular No. 19) does not include, excepting this article made up of glucose mixed with a certain percentage of refiners' syrup or some other syrup?

A. Why, it does not include refiners' syrup." Trans. 269.

This is the only answer the witness can make, and it is not an answer but an attempt to dodge, so characteristic throughout Dr. Chandler's testimony. He knew very well that the same circular defined refiners' syrup as "the residual liquid product obtained in the process of refining raw sugars." Trans. 441.

To understand the extremes to which Dr. Chandler was willing to go in his criticism quoted above in his definition of syrup in Circular No. 19, one only needs to read the definitions given of the term syrup in the three leading dictionaries of the English language, the Century Dictionary, the Standard Dictionary, and the latest edition of Webster's International Dictionary.

Dr. Chandler attacks the definition as given in this circular of syrup, on the ground that when this term is coupled with another term as in "refiners' syrup," or "sugar syrup," it has a

different meaning than when used alone. Trans. 223-224. According to this reasoning one could criticise the definition of butter, because when used in the name "apple butter" it has a different meaning than when used alone. The same would be true of the terms "milk" and "butter milk," "modified milk," "skim milk," "pasteurized milk," "sterilized milk," "evaporated milk," "condensed milk," "butter" and "renovated butter," or "fruit butter," or "glucose fruit butter," "flour" and "buckwheat flour," or "corn flour" or "graham flour" or "rye flour." See pp. 1045-1050, laws 1909, Wis.

The learned counsel, at pp. 67-68 of the brief, joins with Dr. Chandler in condemning the definition of syrup in Circular No. 19, because this circular also defines "refiners' syrup," and also because it defines "sugar syrup" differently from what it defines the simple term syrup. We refer counsel to section 4601-4a, page 1047, laws 1909 of Wisconsin, where the term milk is defined, and then the various other terms, such as pasteurized milk, etc., are also defined in the same section.

We respectfully submit that counsel seems to forget some of the leading principles on which these standards are based, that "the definitions are so framed as to exclude from the articles defined substances not included in the definitions," and further that "the names of food products herein defined usually agree with existing American trade or manufacturing usage; but where such usage is not clearly established or where trade names confuse two or more articles where specific definitions are desirable, preference is given to one of the several trade names applied." Trans. 48-49.

6. "Corn syrup" not a proper term for commercial glucose, whether mixed or unmixed.

(1) *Not proper to use the word "syrup" as a part of the term to designate the compound product.*

The foregoing facts demonstrate that whether you consider the common understanding of the people, the consumers, or the correct definition of the term syrup as a food product, it is not proper to designate commercial glucose as a syrup. Of course, if it is not proper to designate it as a syrup when unmixed, it cannot properly be used to designate a syrup when mixed with a small percentage of some true syrup or refiners' syrup. The testimony already considered shows that there is a radical distinction between what are known as true syrups and the product known as commercial glucose obtained by the action of an acid upon starch. According to all of the standard English dictionaries, the latest editions, as they existed at the time of the trial, glucose is not a syrup. According to these definitions commercial glucose does not correspond to a single one of the substances to which the lexicographers attach the name syrup. Speaking broadly, it may be conceded to be proper to characterize commercial glucose as a syrupy substance, as is often done by authors and writers on the subject. But the legislature, in the enactment of a pure food law which is to govern the conduct of business men, must of necessity use terms with some definite, precise meaning.

(2) *It is still more objectionable to use the word "corn" in connection with syrup to designate the product under discussion.*

It is demonstrated by the evidence in this case that commercial glucose is a product manufactured from starch by the application of some acid, and that so far as the product is concerned, it is wholly immaterial from what particular source the starch is produced from which commercial glucose is made. It is the undisputed testimony that no skill of the scientist or analyst has ever been able thus far to determine by the analysis of commercial glucose whether it came from the starch of corn, or potatoes, or from some other source. Hence, there is nothing in the product, commercial glucose, to indicate

the source from which it came. There is nothing, therefore, in the product, characteristic of the grain corn. Hence, to speak of the product under the term "corn syrup," is misleading, and, as the evidence abundantly shows in this case, it is intended to be misleading to the consumer.

Moreover, as already suggested, undoubtedly glucose manufactured in Germany from the starch of potatoes is being imported into this country. Again, it is probable that the time will come when starch for the manufacture of commercial glucose will be made from potatoes throughout large sections of this country. Under such circumstances, we would have a product manufactured from the starch of potatoes sold upon the market as corn syrup. Even Dr. Chandler admits that such a use of this term would be improper. Trans. 249-250.

The testimony shows that the Corn Products Refining Company has been inconsistent and illogical in labeling its goods. On the most prominent part of the label upon the can appears the term, as the foods are now put out, "Corn Syrup" or "Karo Corn Syrup." Then over on one side will appear the term "90% Corn Syrup," and in another place "10% Cane Syrup." Hence, we have the combined or mixed product sold under the same name as is used to designate in another place upon the same can one of the elements of the mixed product.

Appreciating this inconsistency, undoubtedly, Dr. Wagner, in his testimony before the Secretary of Agriculture at Washington in December, 1907, testified:

Dr. Dunlap: "Do you consider the term corn syrup a satisfactory name for glucose plus a certain percentage of refiners' syrup?"

Dr. Wagner: "I do not consider it a satisfactory term for that as much as I would for glucose alone."

Dr. Dunlap: "But you would not consider corn syrup a satisfactory term for glucose plus a percentage of refiners' syrup?"

Dr. Wagner: "No." Trans. 389-390.

Evidently this witness has modified his views since giving the above testimony.

The State concedes that in Germany the term potato syrup is sometimes, quite infrequently, however, used. But it needs to be remembered in this connection that, according to all the evidence, table syrups are not a commercial commodity in Germany, and that therefore the term syrup in this connection could not lead to deception. Trans. 391, 422-423. Furthermore, it is a matter of common knowledge that no syrup could be obtained from potatoes in the sense that syrup can be and is obtained from cane, sorghum and from juice from the stalk of the corn, and that therefore there could be no confusion arising from the term potato syrup.

Had the manufacturers of commercial glucose in this country designated the article, as is usually done in European countries, by the name of starch syrup, there might have been no objection. Although not a true syrup, the term would indicate the origin or source of the product, and would inform the customer of the essential facts needed to enable him to determine whether he desired to buy it for table use.

(3) *"Corn Syrup" should be confined to the syrup produced from the juice of the corn stalk.*

It is conceded, even by Dr. Chandler, that if a syrup was manufactured from the juice of the stalks of corn as a commercial product, that there should be applied to it the term corn syrup and that it would be improper and deceptive to apply the term under these circumstances to commercial glucose produced from the application of an acid upon starch.

"Q. Then if it ever became true that they made corn syrup from the stalk of corn, it would be misleading, wouldn't it, to brand another kind made from starch as corn syrup?
A. In a sense, yes. But if it was so alike, of exactly the same composition, there would be no object in making a distinction." Trans. 250.

The italicized portion of the above answer is an apt illustration of the character of the testimony of Dr. Chandler. It will be observed that the question put was, "if it ever became true that they make corn syrup from the *stalk of the corn*," etc. And Dr. Chandler well knew the question was directed to the making of a syrup from the juice of the stalk of the corn. But he saw an opportunity to misconstrue the question. He sought to make it apply to the manufacture of a syrup *from the cellulose contained in the stalk of the corn*. It well illustrates both the ability and the unfairness of the witness. All the preceding questions show that they were directed to the manufacture of a syrup from the juice of the stalk and not from the cellulose contained in the stalk of the corn. No one understood this better than Dr. Chandler.

Later, and after recess, the witness desired to correct his answer by stating that "if the sugar or syrup were made from corn stalks, the proper name would be 'corn stalk sugar' and 'corn stalk syrup.'" Upon that supposition he was asked whether he ought not to name the article made from the starch of the corn, "corn starch syrup," or "corn starch sugar," and his answer was, "you can call it 'corn sugar' or 'corn syrup' or corn starch syrup,' whatever you please." Trans. 250.

That the manufacture of a commercial syrup from the juice of the stalk of the corn is not at all problematical, as is well shown by the testimony in this case. A true corn syrup was made from the juice of corn stalks by the aborigines in this country and by the natives of Mexico, and was made in considerable quantities during the Revolutionary war, and has been made in greater or less quantities ever since. The United States Department of Agriculture has made numerous analyses of such syrup, and of the sap of corn, and has found that there is a large percentage of cane sugar in it. Trans. 44-45, 96-97.

As to the sweetness and composition of such a syrup when compared with the sweetness of sorghum, and that in fact the

composition of the sap of the corn stalk is very similar to that of the sorghum, see testimony of Dr. Fischer. Trans. 185-187. His testimony shows that under favorable conditions of growth the amount of sugar contained in the sap of the maize plant or corn is very nearly the same as in the sorghum.

As to the reports on the manufacture of syrup from the juice of the stalk of the corn, see testimony of Dr. Fischer. Trans. 185-186, 202-203. At the latter page, the witness, in answer to the question as to whether, if this article could be produced commercially, it would not have been so produced long before this, answered:

"I believe that if at the time of those investigations, or a little later, the beet sugar industry had not started in this country, and if the glucose industry hadn't started in this country, which practically ruined the sorghum industry and molasses industry and made possible this corn syrup industry, I think it might have proved a success." Trans. 203.

An attempt was made on the part of the defendants to show that Dr. Wiley, in an article found in Volume 11 of the Universal Encyclopedia, had stated that it was impossible to attempt to manufacture a syrup from the juice of the corn. But, as shown by the testimony, Dr. Wiley was speaking of the manufacture of *sugar* from the juice of the corn and not of the manufacture of a syrup. Trans. 333-334. This is also made plain by the testimony quoted at p. 71 of the brief of counsel.

The defendant contended that there are certain bitter elements in the stalk of the corn that make the juice extracted necessarily bitter. But Dr. Fischer, in speaking of this contention, states that it is not borne out by Government reports because, as he states, "they speak there (referring to the report) of it as a very palatable product superior to the sorghum of the market and molasses of the market. I don't suppose the juice of the corn has changed very much since." Trans. 204.

The testimony of Dr. Fischer further shows that in these reports of the Department of Agriculture, the product obtained

from the boiling down the juice of the stalk of the corn is designated as "corn syrup," the language being "corn syrup should not be boiled to so great a density." Trans. 203.

(4) *The use of the term "corn syrup" not sanctioned by dictionaries, authors, or writers on the subject.*

(a) As to dictionary definitions: It is significant that at the time of the trial of this case no definition of any such term as corn syrup had been found in the then latest editions of any of the standard dictionaries of the English language. Dr. Chandler was asked whether he found such term defined in either Webster's International Dictionary, or the Century Dictionary, or the Standard Dictionary, and his answer was, "I don't remember. Q. Well you have examined these dictionaries, have you not, carefully, doctor? A. No, I didn't examine them." Trans. 240.

And yet this same witness submitted to the secretaries at Washington, as a part of his brief, an argument, in support of, to use his own language, 'the use of the word syrup during the past one hundred years' what purports to be the definitions of the word syrup by the Standard Dictionary, Century Dictionary, Webster's Handy Dictionary (1877) and Webster's International Dictionary (1900). One only needs to compare the definitions as here given of syrup and of glucose with the complete and full definitions given by these different dictionaries, and found on pages 25-26 hereof, to be convinced of the absolute unfairness of Dr. Chandler, in the preparation of his so-called brief and report. For example, the only definition of a syrup given by him from the Standard Dictionary is "a thick, sweet liquid." He intentionally omitted the specific definitions of the term as given in this dictionary which supported the contention made by Dr. Wiley. Trans. 240-241. It is to be remembered in this connection that this brief of Dr. Chandler went before the three secretaries as an ex parte document, the different dairy and food commissioners and food chemists of the

country having had no notice of the hearing, and it went before these secretaries with all the weight that Dr. Chandler could give it by his long experience and distinguished ability. We mention these facts here, in passing, merely to show the kind of evidence upon which the three secretaries acted. It is not surprising that these three secretaries, who were in no sense chemists or food experts, should have been influenced by such report, prepared and presented in such a partisan manner by the retained expert of the Corn Products Refining Company.

(b) As to quotations from authors and writers prepared by Dr. Chandler: As a part of this same report, pp. 13 to 17 inclusive (Trans. 454-457), Dr. Chandler collected a list of authors and writers extending from 1813 down to 1907, for the express purpose of proving that it was proper to designate commercial glucose as a syrup or as corn syrup. In connection with this list of authorities he testified, on direct examination, that glucose in its liquid form in Europe was known under the name of "potato syrup." "That is the common name for it. I don't remember any other name, than potato syrup. I think it may *sometimes* be called starch syrup." Trans. 209-210. The court will find it interesting reading to compare the above testimony with the cross examination of the same witness on the same subject. Trans. 238-239.

Dr. Fischer examined this list of authorities to determine how often the term "potato syrup" was used as compared with "starch syrup." He found that in all these German authorities that used the term "potato syrup" or starch syrup," or both, in this compilation, that only one uses the term "potato syrup" and not "starch syrup." One gives both "potato syrup" and "starch syrup," while nineteen give "starch syrup" but not "potato syrup." Trans. 424.

(c) The so-called Academy Report considered: At the request of the Commissioner of Internal Revenue of the United States, the National Academy of Sciences, in 1883, appointed

a committee to investigate the composition and saccharine quality of glucose in its solid, liquid and semi-liquid form and its deleterious effect, if any, when used as an article of food or drink, or as a constituent element of such article. In the title and throughout the body of this report, when speaking of the product under consideration, the term glucose is used. And in the bibliography on this subject, attached to the report as an appendix, covering a period from 1790 to 1883, comprising 28 pages, the term "*corn syrup*" is not mentioned once. The only place throughout the whole report in which this name appears is on page 73, where it is mentioned as one of the names under which it appears in commerce. This is admitted by Dr. Chandler (Trans. 235), but he had to accompany such admission by an attempted explanation to the effect that the letter "requesting us to investigate this subject called for an investigation of 'glucose' and naturally we used the word in writing our report, and that was the word employed by the party requesting the report." Trans. 235. But the letter required an investigation, to use the language of the letter, "*on the article in its solid, liquid and semi-liquid form.*"

An examination of the testimony of Dr. Chandler (Trans. 399-404), clearly shows that the use of the term "*corn syrup*" as found in this report, crept in by the examination of two samples analyzed by the commission which came from a fake concern, a concern that would not, to use the language of the report, "inform the committee of the nature of their processes, which they deemed it important to hold secret." It was from this concern, as conceded by Dr. Chandler, that samples No. 16, the maltose sample, and No. 17, the maize syrup sample, came, both being marked "Factory G." As showing the fake character of the concern, the maltose sample shows, upon analysis, only 0.6% of maltose.

The testimony shows that both of these samples, being 16 and 17, contained an abnormally high percentage of alkali, the

maize sample being 0.374 and the maltose being 0.337. The only other sample of the liquid product giving any such percentage is No. 4, which is designated as a "mixing syrup," and is doubtless a mixed product. The same is true, undoubtedly, of samples 16 and 17, both of them being a mixture or mixed product, and this is undoubtedly the reason why the manufacturers refused to disclose the so-called secret of their business.

We have called special attention to this matter for the reason that nearly all the evidence produced on the part of the defendants in this case as to the use of the term "corn syrup" to designate the liquid product, commercial glucose, by authors and writers, is based upon this Academy Report. That is, authors and writers subsequent to 1884, have simply copied into their books or foot notes the list of names found on page 73 of this Academy Report. And when it is remembered that the only place in the Academy Report, where the name "corn syrup" is found, is in connection with this article that was being put out by this fake concern, one realizes how little importance should be given to the fact that this term is found in the foot notes to certain authors, as one of the names used in some cases to designate commercial glucose.

Dr. Chandler attempted throughout the trial to get away from this Academy Report of 1884 as much as possible. But this report is not the only place where Dr. Chandler is on record against his testimony in this case. On Nov. 30, 1894, he wrote to the general manager of the Glucose Sugar Refining Company, one of the predecessors of the present Corn Products Refining Company, in which he certified to the "healthfulness of glucose," and referred to the Academy Report and concluded: "I have not been able to learn anything that would lead me to modify the opinion we then expressed in that report with regard to the healthfulness and value as an article of food of glucose." Trans. 233. When the attention of the witness

was called to the fact that this letter did not mention the word "corn syrup," his only explanation was that he presumed the letter calling for his opinions used the word "glucose" and that he naturally used the same word in answering it.

The witness was then shown another letter, dated April 11, 1898, addressed to the "General Manager of the Glucose Sugar Refining Company," in which he refers to the careful investigation made by the committee in 1884 and stated "we could not find the slightest reason for supposing that under any circumstances *grape sugar or glucose* was in any way objectionable as an article of human food. * * * In conclusion I will say that there are no articles of food to be found in commerce less liable to suspicion than the *glucose or grape sugar* sold in the United States." Trans. 233-234.

It will be observed that the witness here uses terms covering both forms of glucose, solid and liquid, and that nowhere in the letter does he use the word "corn syrup." When his attention was called to the fact of the omission of this term, his only answer was, "now I didn't undertake to give a catalogue of the names by which it is known." Trans. 234.

Dr. Chandler also put himself on record in an article appearing in Johnson's Encyclopedia as late as 1887. Hence, on his direct examination, anticipating undoubtedly that attention might be called to this article, he testified that he began the article in 1873, and that he found an article quoted as late as 1885, but that the article itself must have been written nearly ten years before that date. Trans. 219. An examination of this testimony discloses that Dr. Chandler at this point says nothing as to what the article or articles contained, and the question suggests itself, why he alluded at all to the subject. This is made perfectly plain by consulting Volume 3 of Johnson's Universal Encyclopaedia, page 516, where Dr. Chandler, in an article written by him on "glucose," states that the article in its liquid varieties appears in commerce under the following names: "Glucose, mixing glucose, mixing syrup, corn syrup,

jelly glucose, confectioner's crystal glucose, *maltose*, *maltose syrup*."

It will be here observed that he uses the term "maltose" and "maltose syrup." It will be conceded that such a designation of the product is fraudulent. The analysis contained in this very article, at page 516, shows that the article designated as "maltose" contained only .6 of 1 per cent of maltose. Hence, the use of the name maltose to characterize the product would be clearly fraudulent. It will be further noticed that nowhere in this article does Dr. Chandler use the word "corn syrup" except in the one quotation given above, and then only as giving a list of the various names used to designate the article "glucose," *occasionally, whether used honestly or fraudulently*.

(d) The leading authors and writers on the subject of glucose considered: Frankel and Hutner's book on "starch sugar and dextrin:" This book was published in Philadelphia in 1881. It is based on the German work of Wagner's Treatise on the manufacture of "Starch, Glucose, Starch Sugar and Dextrin." No mention is made in this book of the term "corn syrup" either in the title or in the body of the book. In most places the term "glucose" is used, although in a few places the term "starch sugar" occurs. Trans. 53. Dr. Chandler contended that this was "a German book." As a matter of fact, it was only based on a German book, and it was edited by a practical American glucose manufacturer. Trans. 238, 258.

Blythe on "Foods, their Composition and Analysis" (1903): The term "corn syrup" does not appear at all in this book, either in the title or in the body of the book. It is the recognized authority on food analysis in England. Trans. 193. Counsel for defendants, at page 60 of the brief, quote this work as authority for the term "glucose syrup." What the author states is this: "In treating golden syrup, molasses, the above named syrups are by-products of the sugar industry, and all consist essentially of sucrose and sugar, *the common adulterant being glucose syrup*. Considerable attention has been de-

voted of late years to this form of adulteration on account mainly of the possibility of arsenical contamination by arsenical glucose." Trans. 193. Moreover, had the manufacturers of this article, commercial glucose, designated it as "glucose syrup," it is probable that no complaint would have been made by the state.

Allen's Commercial Organic Analysis: This is an English work with an American edition, the latter being published by Henry Leffmann. It is the most extensive work on the subject of commercial organic analysis in the English language. Dr. Chandler says: "Albert H. Allen is one of the most prominent persons in that branch of chemistry, commercial analysis." Trans. 229. Only once does this work mention the name "corn syrup," and then in *fine print in a foot note*, where the work evidently quotes from the Academy Report:

"In America the term glucose is restricted to the syrup preparations, the solid product being distinguished as grape sugar. The following grades are recognized: Glucose, mixing glucose, mixing syrup, corn syrup, jelly syrup and confectioners' glucose." Trans. 193-194, 333.

In the body of this book under the head of "Commercial Glucose and Starch Sugar" is the following: "Starch glucose occurs in commerce in several forms, varying from the condition of pure anhydrous dextrose through inferior kinds of solid sugar, to the condition of a thick, syrupy liquid resembling glycerine, which contains a large proportion of dextrin." Trans. 333.

Dr. Chandler, in his compilation (Trans. 456), made a very unfair use of this author in quoting the following: "Speaking of glucose says the term is restricted to syrup preparations. States that the following grades are recognized: 'Glucose, mixing glucose, mixing syrup, corn syrup.'" Trans. 456.

He does not indicate that the above is found in a foot note in Allen's work, and that it does not at all represent the opinion of the author. Moreover, he deliberately omits part of the

designations found in the language of said foot note describing this article, namely, "jelly glucose and confectioner's glucose."

Leffmann & Beam's Work on Food Analysis (1905): This is one of the recognized authorities on foods in this country. In the body of the work the author always refers to the product under consideration as glucose, although in one place the statement occurs that glucose is often termed corn syrup. "In trade the term glucose is restricted to the syrup. The solid is called grape sugar." Trans. 192-193.

Dr. Chandler, speaking of Mr. Leffmann, said: "I consider this man a crank." Trans. 238. However, in the title page to the book there is written after his name, "A. M., M. D., Ph. D.," and after Mr. Beam's name there is written "A. M., M. D., F. C. S." Trans. 192. Moreover, it is to be remembered that Dr. Chandler, in preparing his brief to be submitted at Washington, did not hesitate to quote from Leffmann & Beam's work in support of his contention. Trans. 457.

Leach on Food Inspection and Analysis (1905): This is the latest and most comprehensive work on the subject of food inspection and analysis published in this country. Trans. 187, 191-192. Its author was for many years analyst for the Massachusetts State Board of Health and is now in charge of the Government Laboratory at Denver under the Food and Drug Inspection Act. Trans. 188. This author's definition of commercial glucose is practically identical with the definition contained in Circular No. 19. Trans. 188. It is significant that this author omits the name "corn syrup" as a synonym for glucose the year before that synonym was omitted from the revised standards, as promulgated by the Secretary of Agriculture in Circular No. 19. Nowhere in the body of this work does the author use the term "corn syrup" (Trans. 188), although in the article on the subject, in describing the terms under which it is sometimes designated, he states: "Commercial glucose, otherwise known as mixing syrup, cereal syrup, crystal or corn syrup." That is, as stated by the witness, the author gives the

commercial names under which the article was being sold at the time that the book was written, whether such names were used honestly or dishonestly. Trans. 307. As stated by Dr. Fischer: "I should say that any treatise on food and food adulterations to be thorough would contain all the names under which the food products were sold at the time the book was being printed, whether the names under which they were sold were honest or dishonest." Trans. 197. Nowhere does the author lend his name to the contention that "corn syrup" is a proper designation for commercial glucose. It is to be further noted that he gives "United States standard glucose, mixing glucose, or confectioner's glucose" followed by the definitions contained in Circular No. 19. Trans. 188.

Dr. Chandler did not know enough about Leach to state whether he was a "crank" or not.

Gerard et Bonn (1908): This is a recognized authority on foods in France, and contains the French official methods of food analysis. It is the most recent work of its kind published in the French language. This work uses the term "glucose" in designating the product under consideration. Trans. 53.

British Pharmacopoeia, latest edition (1898): The liquid variety of glucose is here called "liquid glucose," while a preparation composed of one part of liquid glucose and two ounces of simple syrup is officially called "syrup of glucose." The book nowhere recognizes the term corn syrup as synonymous with glucose. Trans. 194.

United States Dispensatory and National Dispensatory (1907): These are the two principal dispensaries published in this country and are standard works. Neither of them give any sanction to the term "corn syrup." Both of them use the term "syrup" for any thick liquid. They describe glycerine as a "syrupy liquid." Trans. 199.

International Encyclopaedia (1903): The defense introduced from this book the following, quoted at p. 61 of brief of counsel:

"The term glucose is applied to mixtures of a substance described above, with other carbohydrates, the various mixed products being otherwise called starch syrup, corn syrup, starch sugar, corn sugar," etc. Trans. 411-412.

Later Dr. Fischer testified that he had examined the whole book, and that, with the exception of the above quotation, he failed to find in the entire article, in this book, on the subject of glucose, any reference to the term "corn syrup," although the term "glucose" was used, and in one place the article speaks of a "syrupy glucose." Trans. 423.

Universal Encyclopaedia (1900): The defense introduced in evidence from page 175 of this book the following:

"Starch sugar appears in commerce in a great variety of grades under the following names: liquid varieties: glucose, mixing glucose, mixing syrup, corn syrup, jelly glucose, confectioners' crystal glucose, maltose, maltose syrup." Trans. 412.

It will be observed that the above is an exact copy of what is contained in Johnson's Encyclopaedia, quoted above, and this in turn is quoted from the Academy Report. Dr. Fisher testified that he was familiar with the article, and that in the above quotation was contained the only reference to the term "corn syrup" in the entire article. The article is on the subject of glucose, and the term glucose is used quite frequently throughout the article. Trans. 420-421.

Reports of food chemists of state departments or by food and dairy commissioners and state boards of health: It is and has been the universal custom in this country for food chemists, when speaking or writing of this product, to designate it as glucose. Trans. 80.

Counsel, at pp. 62-63 of the brief, misstates the testimony of Dr. Fischer. He nowhere testifies that this article "can most properly be called 'a syrup' and more properly so than 'glucose';" were the article not so familiarly known as glucose." What he did state was this: In Germany the term glucose is used to designate one of the class of sugars known as dextrose.

It is never used in Germany to designate the liquid product. In France, Germany and England the unmodified term "syrup" is never used, although the article is sometimes spoken of as a "syrupy preparation." In Germany it is commonly known under the name of "starch syrup." On being asked whether this would not be a better term to designate the article than "glucose," he said: "If glucose hadn't been so universally used as the name for the product in this country I should say yes; *but in this country the term glucose has become so familiar that I believe it is a perfectly proper designation. It might perhaps be called starch syrup.*" The part italicized is omitted by counsel. Trans. 53, 82.

(5) *The use of the term "corn syrup" not sustained by the legislation in the different states.*

The word glucose was, at the time of the trial, used in the food laws, regulations or standards of the following states: California, Colorado, Connecticut, Florida, Georgia, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Minnesota, New Jersey, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Porto Rico, Texas, Utah, Vermont, Washington and Wisconsin.

The term "corn syrup" was not found in the laws and regulations of these states or territories except as stated below:

The words "corn syrup" or "glucose" are used in the food laws, regulations or standards of the following states: Connecticut, 1887, Rev. 1888, sec. 2622, 1889, chap. 238; Michigan (glucose mixture or corn syrup) Public Acts 1903, No. 123; in the ruling of Commissioner Wright of Iowa; in the ruling of the Dairy and Food Commissioner of Ohio; Regulation 33 in Food Standards of Louisiana, April 25, 1908; in New Hampshire Sanitary Bulletin, Oct. 8, 1907; in the reports of the State Food Commissioner of Illinois for 1906 and 1907. Trans. 412-415.

In only two of the states is there a statute expressly authorizing the use of the term "corn syrup" as a synonym for "glu-

cose." It will be observed further that in no statute of any state, and in no regulation of any department in any state, is it provided that corn syrup shall be used and not glucose. In every case where the term corn syrup is permitted at all, the law or regulation also permits the use of the term glucose.

The regulation established by the New Hampshire Board of Health, put in evidence by the defendants, is interesting as illustrating what the board thought of these glucose mixtures. It is plain that the object of the regulation was to prevent deception and fraud in the sale of these compound mixtures. Trans. 413.

The regulations established by the Louisiana State Board of Health, put in evidence by the defense, plainly indicates that the board of health was of the opinion that "corn syrup" was nothing more than "confectioners' glucose." Trans. 413-414.

As to the regulations introduced by the defendants from Ohio, it is to be remembered that they were regulations by a former commissioner, and that the present commissioner repudiated the term "corn syrup" as a synonym for "commercial glucose" by being present at the Mackinac meeting in 1908, and voting in favor of the standards as promulgated in Circular No. 19, so far as the standards related to the subject under investigation in this case. Trans. 421.

We fail to see the force of the argument of counsel that the use of the term "corn syrup" should be permitted as a synonym for glucose, because Commissioner Emery, after the passage of the law of 1905, approved of brands containing this term. He simply did what the law compelled him to do. Trans. 294, 300-304.

(6) *The use of the term "corn syrup" is not sanctioned by those entrusted with the enforcement of the pure food laws in the different states.*

This proposition involves the action taken both at the Jamestown meeting in July, 1907, and at the Mackinac meeting in

August, 1908, of the Association of State and National Food and Dairy Departments.

(a) The meeting at Jamestown: Circular No. 19, establishing standards, was approved and promulgated by Secretary Wilson on June 26, 1906. The testimony shows that this Circular, No. 19, attracted wide attention and led to much discussion, and that such discussion had been carried on throughout the country for a little over a year prior to the meeting of the above association at Jamestown. This meeting was largely attended. Dr. Wagner read a prepared address upon the subject of glucose and corn syrup, and there was discussion of his paper, participated in by Commissioner Emery, among others. Counsel argue, at page 67 of the brief, that little heed should be given to the action of this association at Jamestown, because "the 400 or more standards of" Circular No. 19, were approved "by a single vote." But counsel here forgets that the only subject covered by the standards which was discussed at the Jamestown meeting was this subject of the proper designation of glucose mixtures. At the close of such discussion, Dr. Richard Fischer read the report of the Food Standards Committee of the above association, which had previously also been adopted by the joint standards committee of the above association and of the Association of the Official Agricultural Chemists, comprising the following persons: Dr. William Frear, Dr. H. W. Wiley, Dr. M. A. Scovill, Dr. E. H. Jenkins, Dr. H. A. Weber, Prof. H. E. Barnard, Prof. Elton Fullmer and Dr. Richard Fischer. This report on standards included the standards or definitions for syrups and for glucose products as given in Circular No. 19. *The report was adopted by a unanimous vote.* Trans. 68-69, 87-88, 118-119, 181, 294-299.

(b) Occurrences at Washington between the Jamestown and Mackinac meetings: Before considering the proceedings of the meeting held at Mackinac in August, 1908, we call atten-

tion to what took place at Washington between the Jamestown and Mackinac meetings. Shortly after the enactment of the Food & Drug Act of June, 1906, there was created what is known as the Food and Drug Inspection Board. Section 3 of the Pure Food Law, enacted June 30, 1906, provides:

"That the Secretary of the Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor shall make uniform rules and regulations for carrying out the provisions of this act," etc.

The Food and Drug Inspection Board was appointed by the Secretary of Agriculture to assist him in the enforcement of the Pure Food Law. This Board was made up of the Chief of the Bureau of Chemistry, Dr. H. W. Wiley, the solicitor for the Secretary of Agriculture, John McCabe, and Dr. Frederick J. Dunlap, Professor of Chemistry, at the time of his appointment, at the University of Michigan. It was before this Board of Food and Drug Inspection that the Corn Products Refining Company appealed to get the ruling of the Standards Committee, as announced in Circular No. 19, prohibiting the use of the term corn syrup as a synonym for glucose, changed.

Counsel, at page 58 of the brief, argues that Circular No. 19 nowhere states or rules "that the name 'corn syrup' as applied to the chief ingredient of the defendant's mixture is false, deceptive or misleading in any particular, nor that that name is not scientifically, commercially and popularly recognized as true and appropriate." Such, however, was not the understanding of the effect of Circular No. 19 by the officials of the Corn Products Refining Company.

The hearing asked for was had before this board, the Corn Products Refining Company appearing with its representatives and witnesses, among them being the retained expert, Dr. Chandler, with his written brief on behalf of his client, but no testimony was introduced on behalf of the Government or against the contention of the Corn Products Refining Company, the Dairy and Food Commissioners of the different states and

the food chemists engaged in the enforcement of the pure food laws and different members of the Standards Committee, having received no notice whatever of such a hearing. Trans. 184-185.

Notwithstanding this wholly ex parte representation, after careful consideration of the evidence submitted, the Board of Food and Drug Inspection, two of whose three members, Dr. Wiley and Dr. Dunlap, were food chemists, unanimously refused to approve the request of the Corn Products Refining Company, and early in November, 1907, issued its decision containing the following points:

"(a) Corn syrup is not a satisfactory synonym for glucose mixed with refiners' syrup."

"(b) Corn syrup is not a satisfactory synonym for glucose."

This declaration of the board was, as a matter of fact, approved by the Secretary of Agriculture, and the decision was placed in type and passed to galley proof; and under date of Nov. 8, 1907, a letter was sent to the Corn Products Refining Company in the words following:

"Referring to the briefs and arguments which you have submitted to this Board in re the use of the term 'corn syrup' and to the hearings which you have had before the Board, I beg to make the following statement:

"The Board of Food & Drug Inspection carefully considered the briefs and arguments which you have submitted and the points brought out at the oral hearing. We have come to the unanimous conclusion that the term 'corn syrup' is not a proper designation to be used with a mixture of glucose and sugar cane products. We are therefore of the opinion that the term 'corn syrup' is not a satisfactory synonym for glucose.

Respectfully,

Trans. 335.

H. W. WILEY, Chairman.

It is well to bear in mind, at this point, that the foregoing decision as to the uses of the term "corn syrup" reached as stated above, is a decision that has back of it not only the three members of the Board of Food and Drug Inspection and

the Secretary of Agriculture, but the unanimous support of the committee on food standards and also the unanimous support of the members of the Association of Official Agricultural Chemists, comprising the chemists of the United States Department of Agriculture and of the various state agricultural experiment stations and of the chemists in charge of the chemical work for the enforcement of the state food laws, and also the unanimous support of the Association of National Food and Dairy Departments, consisting of the Food-Control officials of the different states. With these facts in mind we shall the better appreciate the methods and influences used to secure the ruling of the three secretaries, on February 13, 1908, so much relied upon by counsel for the defendants.

The Corn Products Refining Company, upon receipt of the above letter from Dr. Wiley, immediately sent Dr. Wagner to Washington for the purpose of appealing from the decision of the Board of Food and Drug Inspection to the Secretary of Agriculture, though the Secretary of Agriculture had approved of the decision made by the Board of Food and Drug Inspection. Trans. 335-336.

The Secretary of Agriculture granted the request of the Corn Products Refining Company and set the hearing down for Dec. 7, 1907. Trans. 337.

It was upon this hearing, nominally before the three secretaries, Cortelyou, Wilson and Strauss, but in fact only before Secretary Wilson (Trans. 388) that the Corn Products Refining Company submitted the written opinions theretofore compiled by Dr. Chandler, and various other ex parte statements, as well as various briefs prepared by their general or special counsel. That the hearing was entirely before Secretary Wilson is testified to by Dr. Wagner, who was present: "Q. That (this hearing) was before, I suppose, the Secretary of Agriculture? A. Yes, sir. Q. The other secretaries, Cortelyou and Strauss, were not there? A. No, sir. Q. Took no part in it? A. No, sir." Trans. 388.

Here, again, no notice whatever was given to any of the members of the Standards Committee or to any of the dairy and food commissioners or food chemists of the different states, of this hearing, and they had no opportunity whatever of presenting their side of the controversy. So far as appears from the evidence in this case, the only person who represented the side of the people or the Government was Dr. Wiley. It seems that he filed a brief in support of the decision of the Food and Drug Inspection Board, and it also appears that briefs were submitted by the other two members of that board, Mr. McCabe and Dr. Dunlap. What these briefs contained as prepared by these two members of the board does not appear in this case. It was conceded, however, that there was no evidence in this case that these two members of the Food and Drug Inspection Board were opposed to the opinion expressed in the letter by the chairman of the board quoted above. Trans. 346.

Immediately after this hearing at Washington on Dec. 7, 1907, the Corn Products Refining Company, through its agents, Dr. Wagner being one of the most active, started a campaign for the purpose of bringing influence to bear at Washington upon the three secretaries having this matter under consideration. Various resolutions of boards of trade and of other business organizations were secured, politicians were appealed to, especially in Iowa, all for the purpose of influencing the decision yet to be rendered. Trans. 388-389.

It was under these conditions that the ruling of the three secretaries was obtained, on Feb. 13, 1908, as follows:

"We have each given careful consideration to the labeling under the pure food law, of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this svrup as 'corn syrup'; and if to the corn syrup there is added a small percentage of refiners' syrup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled 'corn syrup with cane flavor.'"

Counsel is under a misapprehension as to the power of the three secretaries. Speaking of the above decision, at page 56 of the brief, he states that it must be treated "as setting forth the *final and binding food standards* as to the truthfulness and lawful branding, in interstate commerce." But these three secretaries have no power whatever to establish food standards. This power was conferred upon another body by the Appropriation Acts, the last one having been adopted on March 3, 1905, "to enable the Secretary of Agriculture, in collaboration with the Association of Official Agricultural Chemists and such other experts as he may deem necessary, to establish standards of purity for food products and to determine what are regarded as adulterations therein." *Rider*

The Department at Washington has also ruled that the Corn Products Refining Company could brand its goods as required by the Wisconsin law and sell the same legally in Wisconsin, as well as other states of the Union, without any violation of the national pure food law or regulations of the Department of Agriculture. Trans. 143. Hence, the above decision of the three secretaries is to the effect that the Corn Products Refining Company may, if it sees fit, label its article "corn syrup" without violating any national law, and that it may also label it as the law of Wisconsin requires, without violating any national law.

As bearing on the attitude of Secretary Wilson, and the value or force that should be given to the decision signed by him and the other two secretaries, we direct the court's attention to the fact that immediately after this decision was rendered, the Secretary of Agriculture permitted Dr. Wagner to take the briefs of Dr. Wiley and also of Mr. McCabe and Dr. Dunlap out of his office at Washington and make copies of the same. These cases were commenced shortly after this time. The Corn Products Refining Company had the benefit of these briefs for a year preceding this trial. Trans. 339-344.

In contrast with the treatment accorded this officer of the

That the three secretaries have no power to establish food standards, has been determined by Attorney General Wickersham, as recently as July 8, 1912. (See Vol. 29, Opinions of the Attorney General, page 494.) In the opinion to the three secretaries, under the above date, the Attorney General, in answering these specific questions:

"1. Are the three secretaries restricted to the making of rules and regulations, or have they any authority to review findings of fact and reports made to the Secretary of Agriculture?

"2. If the findings of fact and reports have been approved, should the three secretaries participate in the announcement, or does the law contemplate that the announcement shall be made by the Secretary of Agriculture alone?"

After stating the provisions of Sections 4, 5 and 11 of the Food and Drugs Act of 1906, said: "It clearly appears from this brief statement that the direct and active enforcement of the statute is cast upon the Department of Agriculture and upon that Department alone. *The sole duty of the three secretaries in connection with the law is the making of rules and regulations for the carrying out its provisions.*" (The italics are ours.)

The Attorney General then refers to the fact that the referee board (otherwise spoken of as the Remsen board)), had from time to time reported to the Secretary of Agriculture upon certain articles of food, and that such reports had "been submitted to the three secretaries, and, if approved by them, a rule has been promulgated to the effect that the preservative investigated will, or will not, constitute an adulteration as the case may be," and then adds: "I take it that such rules have been made under a misapprehension of the true meaning of the statute. . . . This report is not binding upon the Secretary of Agriculture, but is simply for his information and guidance." Nor is such report binding upon the courts.

Hence, these three secretaries, in the hearing had and in the decision announced, so much relied upon by counsel, were acting wholly without authority. Section 4 of the Act of 1906 expressly vests in "the Bureau of chemistry of the Department of Agriculture" the power of determining whether articles of food or drugs "are adulterated or misbranded within the meaning of" the act.



That the three Secretaries in rendering this decision on February 13, 1908, were acting wholly without authority is made plain by the decisions of the Food and Drugs Act.

Section 3 of this act gives to the three Secretaries the power to "make uniform rules and regulations for carrying out the provisions of this act." This is the only power conferred upon the three Secretaries.

Section 4 of the act provides that "the examinations of specimens of food and drugs shall be made in the Bureau of Chemistry of the Department of Agriculture, or under the direction and supervision of such Bureau, for the purpose of determining from such examination whether such articles are adulterated or misbranded within the meaning of this act." From such examination, it appears that such articles are adulterated or misbranded, then it becomes the duty of the Secretary of Agriculture, to give notice thereof to the party from whom such sample was obtained. The section further provides: "Any party so notified shall be given an opportunity to be heard, *under such rules and regulations as may be prescribed as aforesaid.*" (That is as provided for in section of the act.) Acting under the authority here conferred, the three Secretaries adopted Regulation No. 5. (See Circular 21, of the Department of Agriculture), which provides the party complaining "may be heard before the Secretary of Agriculture, or such other official connected with the food and drugs inspection service as may be commissioned by him for that purpose." Acting under this regulation, so established the three Secretaries, the Secretary of Agriculture created the Food and Drug Inspection Board, consisting of three officials in the food and drug inspection service. The chief of the Bureau of Chemistry, Dr. Wiley, was made chairman of the Food and Drug Inspection Board, the other two members were Dr. Dunlap and Solicitor McCabe. It was before this Board of Food and Drug Inspection that a hearing was had, and on November 8, 1907, a unanimous decision was rendered by the Board, and approved by the Secretary of Agriculture as follows:

"(a) Corn syrup is not a satisfactory synonym for glucose mixed with refiners' sirup."

"(b) Corn syrup is not a satisfactory synonym for glucose."

This was equivalent to deciding that should the Corn Products Refining Company label its article as was proposed such labeling would constitute misbranding under the Food and Drugs Act.

This decision should have ended the controversy, so far as the Department of Agriculture was concerned, and in case of the labelling and selling of this article under the name of "corn syrup," after this decision of the Food and Drug Inspection Board, it would have been the plain duty of the Secretary of Agriculture under the provisions of Section 4 of the act, and under Regulation 5, to certify the facts to the proper United States District Attorney, "for prosecution of the offending party." Instead of doing this, the Secretary of Agriculture assumed to grant to the Corn Products Refining Company an appeal from the decision of the Food and Drug Inspection Board to the three Secretaries. For this procedure there was absolutely no authority. It was an attempt to displace and supplant the decision of the officials of the Bureau of Chemistry, on a question of misbranding, by the decision of the three Secretaries. The statute wisely vests the decision on all such questions in the Bureau of Chemistry composed of men specially trained and selected for this particular line of work, rather than with the three Secretaries, none of whom may be a chemist or a scientist, and whose only function under the act is to "make uniform rules and regulations" for its enforcement.

The foregoing views are in complete harmony with the opinion of Attorney General Wickersham, dated July 8, 1912, the substance of which is stated on page 62a of this brief. These views are also in complete harmony with the unanimous report of the Moss Committee of the House of Representatives, dated January 22, 1912, which committee investigated the charges against Dr. Wiley. (See Report of House of Representatives, No. 249.)

This report, at page 6, after quoting in full Section 4 of the Food and Drugs Act, says:

"The Bureau of Chemistry is in the Department of Agriculture, and is therefore subject to the general authority of the Secretary of Agriculture; but the language in this section gives specific instructions to the Bureau of Chemistry in defining the duties of the bureau under the law; likewise the duties of the Secretary of Agriculture are carefully differentiated from those of the Bureau of Chemistry and are set forth with equal precision. In the discharge of their respective duties under this section these officials are therefore acting within spheres defined by law which can not be changed by executive orders. It is the duty of the Bureau of Chemistry to make examinations of specimens of foods and drugs for the purpose of determining whether or not such specimens are adulterated or misbranded within the meaning of the law. This is the peculiar and exclusive duty of the Bureau of Chemistry, as defined by the express terms of the law.

The Secretary of Agriculture is charged with the duty of giving the parties from whom samples are obtained notice of the findings of the Bureau, if such samples have been found to be adulterated or misbranded within the meaning of the act, and of certifying the facts to the proper district attorney, with a copy of the results of the analysis or examination of such article, duly authenticated by the analyst or officer making such examination, under the oath of such officer. These respective duties of the Secretary and Bureau are enumerated separately in the statute, and whatever other duties either may be charged with in the administration of the act come by virtue of the rules and regulations which may be established by the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor, under the powers given them jointly in section of the law. The regulations established by these three Secretaries direct that the second hearing shall be held 'before the food and drug inspection service as may be commissioned by him for that purpose.' * * * Secretary Wilson delegates this power of review to a Board of Food and Drug Inspection," with a membership as above stated.

The same report at page eleven thereof makes the following statement:

"Under the regulations of the three Secretaries, the findings of the Bureau of Chemistry can be reviewed *legally* only by the Secretary of Agriculture, or by the Board of Food and Drug Inspection which was organized by him for that purpose."

We have quoted the above for the reason that it clearly expresses what we deem to be the correct interpretation of Section 4 of the Food and Drugs Act.

We respectfully submit that the decision of the three Secretaries, dated February 13, 1908, so much relied upon by counsel for plaintiffs in error, is of no force or effect whatever, and it will be conceded, we think, that aside from this decision, the Wisconsin statute and the Food and Drugs Act are in exact harmony.

It should be here stated that the so-called "referee board" referred to in the opinion of Attorney General Wickersham at page 62a of this brief, was not created until February 24, 1908, eleven days after the date of the decision of the three Secretaries, and that it was created for the express purpose of passing upon the "harmfulness of sulphur dioxide, saccharin and benzoate of soda." (See page 13 of the Moss Report.) The functions of such board are clearly stated in the said opinion of the Attorney General.

Corn Products Refining Company by Secretary Wilson, we place the treatment of Commissioner Emery by the same secretary. Mr. Emery had learned soon after Dr. Wiley's brief had been filed at Washington, that a copy of the same was in the possession of the Corn Products Refining Company. He, in his official capacity, requested of the Secretary of Agriculture that he also be permitted to obtain a copy of Dr. Wiley's brief, and such request was denied. Not until after Commissioner Emery had appealed to Congressman Nelson, from the district in which these prosecutions were pending, to make a personal request in his capacity as such congressman, that a copy of such brief be furnished to Mr. Emery, did he secure the same. Such copy, however, did not reach him until the middle of the week of the trial, and much too late to enable those representing the State in this case to make efficient use of the very able brief of Dr. Wiley. Trans. 344-345.

Immediately after securing this ruling from the Department at Washington, the Corn Products Refining Company sent out copies of the ruling to the dairy and food commissioners in the different states. Trans. 310.

For the first time in the century or more of the manufacture and sale of commercial glucose, was such glucose unmixed, now sold in barrels to the trade under the name of "corn syrup." Trans. 124-127.

(c) As to the meeting at Mackinac in August, 1908:

After the decision of the three secretaries and before the meeting of the Association of State and National Food and Dairy Departments at Mackinac, there had been held two meetings of the Joint Standards Committee, that is, of the Standards Committee of the Association of State and National Food and Dairy Departments and of the Association of Official Agricultural Chemists, one in Chicago some time in February, 1908, and the other in August, just previous to the Mackinac meeting. Trans. 90-91. At these meetings the decision of the

three secretaries was discussed, and the conclusion was unanimously reached to adhere to the standards and definitions fixed in Circular No. 19 and as fixed by the unanimous vote at the Jamestown meeting in 1907, so far as the articles of food involved in this litigation are concerned. Trans. 91.

The meeting held at Mackinac in August, 1908, was very largely attended, there being some thirty-six different states represented by commissioners and food chemists. At this meeting the Standards Committee of the Association, in its annual report, again recommended for adoption the standards and definitions for syrups and glucose products as laid down in Circular No. 19, *and such recommendation was unanimously adopted by the association.* Trans. 91-92, 117, 119.

At this meeting there was appointed a committee on uniform legislation, with instructions to draft a uniform food law, and such committee was instructed to incorporate therein the standards and definitions as reported and adopted at this meeting. The committee thus appointed consisted of Dr. Ladd, Commissioner for North Dakota, as chairman, with Commissioner Bird of Michigan, Faust of Pennsylvania, Scovill of Kentucky, Bigelow of the Bureau of Chemistry at Washington, and Mr. Allen, in special charge of food work in Kentucky, and one other. This committee, acting in pursuance of its instructions, had, prior to the taking of the testimony in this case, prepared such a proposed uniform pure food law, which included the standards and definitions thus adopted, including the standards and definitions as to glucose products as the same were contained in Circular No. 19. Trans. 92-93, 117, 118, 119, 295-296.

There is here presented to the court the strongest possible evidence as to the opinion and attitude of the food and dairy commissioners and food chemists of the country,—persons who have in charge the actual administration of the pure food laws, including those in the Department at Washington, towards the standards and definitions as determined in Circular

No. 19. The action of these representatives of the different states in these two meetings at Jamestown and Mackinac, both of them held subsequent to the establishment of the standards and one of them subsequent to the decision of the three secretaries, furnishes the strongest evidence that the people of the different states do not propose, if they can prevent it, to abide by any such decision as that promulgated by the three secretaries.

In this connection it is to be remembered that the question of the definitions and standards, as far as the articles involved in this litigation, and included in Circular No. 19, are concerned, had been a subject that had attracted wide attention and had led to wide discussion, even prior to the Jamestown meeting. This interest was intensified after the decision of the secretaries on Feb. 13, 1908. The subject was thoroughly discussed between that date and the date of the Mackinac meeting in July, of the same year, by the committee on food standards of the Association of State and National Food and Dairy Departments and of the Association of Official Agricultural Chemists, and when their report was laid before the members at the Mackinac meeting, every member present was fully advised of the merits of the controversy. Hence, the unanimous vote, at this meeting, not to recede from the standards established in Circular No. 19, notwithstanding the decision of the three secretaries, is the strongest evidence of the attitude of those best qualified to judge toward the use of "corn syrup" as a synonym for commercial glucose.

Counsel, at page 55 of the brief, speaking of the probative force that should be given to the decision of the three secretaries, says: "The entire history of the ingredients in the mixture, scientifically and commercially considered, must have been examined and the popular understanding of their nature and truthful nomenclature have been thoroughly investigated and determined, before the decision was reached."

With all due respect to the eminent gentlemen who rendered

this decision, we feel that we have analyzed the testimony embraced in the record in these cases in vain, if any such controlling force is to be given to this decision. It will not be forgotten that the Secretary of Agriculture, the only one who heard the testimony at this rehearing, had, as late as November, 1907, approved of the findings of the Board of Food and Drug Inspection, which condemned the use of "corn syrup" to designate either mixed or unmixed glucose. It is nowhere contended that either of these secretaries was either a scientist or a food expert. As already shown, they had no power to fix food standards. That power was vested in another body. They had the power, under the Food and Drugs Act, merely to "make uniform rules and regulations for carrying out the provisions of this act." But the standards, in Circular No. 19, were fixed by food experts, and if these standards were to be changed or modified, one would naturally suppose that these food chemists would be consulted. But, as the record shows, they were all ignored, no one of them, excepting Dr. Wiley, being notified of the hearing before the secretaries. They had no voice whatever in determining whether their acts as embodied in Circular No. 19 should stand.

Counsel, at pp. 69-70 of the brief, argues that the opinions of Dr. Fischer as to the definition of a true syrup, are entitled to little weight, while the opinion of Dr. Chandler (p. 63 of brief), "who is a chemist of wide reputation and long experience in food analyses" and who "showed his perfect familiarity, both from study and from personal observation, with all the processes used in the manufacture of sugar, as well as glucose," as to the definition of "syrup" or "corn syrup" should control. We concede that Dr. Fischer had never run, as had Dr. Chandler, a sugar refinery. But it will be observed that in 1906, when Secretary Wilson was looking about for some "experts" to assist him and the committee of the Association of Official Agricultural Chemists in preparing the standards in Circular No. 19, Dr. Fischer was the only person selected as such ex-

pert. Trans. 38-39. He was chairman of the Food Standards Committee which made its report both to the Jamestown and Mackinac meetings. As to his general qualifications and experience, see Trans. 37-38. We concede that Dr. Fischer is quite unlike Dr. Chandler. In the first place, though a man of great learning, he is a very modest man. In the next place, he is a very courteous gentleman. In the next place, he did not testify under a retainer fee of \$2,000. In all these respects he differs radically from Dr. Chandler, who never lost an opportunity, during the trial, to cast some slur upon those who happened to differ with him, calling them cranks, etc. When asked as to his collection of opinions from experts, how many food control chemists, now actually engaged in assisting in the administration of the pure food laws, he had in the list, he answered: "None. We don't consider their opinions reliable." Trans. 260. "I didn't go to the men who call themselves food chemists because I knew they were all directly or indirectly associated with Dr. Wiley. * * * To use a common expression, they all sneeze when Dr. Wiley takes snuff." Trans. 272. He testified that these food chemists were not entirely free to exercise their own judgment, not as much so "as a distinguished gentleman may be who is under employment and special pay of a corporation that is vitally interested in the matter," "and that gentleman never accepts an engagement of that kind unless his conscience tells him that it is the right and just side of the case." Trans. 273-274. He further testified as to these food chemists, the men who prepared the standards in Circular No. 19, that "a large proportion of them are young men who have had little experience as chemists; they have learned to make analyses, and in arriving at opinions which depend on judgment and wide experience they follow the decisions of Dr. Wiley." Trans. 275.

Dr. Fischer testified that the average age of the men who composed the committee collaborating with the Secretary of

Agriculture in preparing the standards in Circular No. 19 was, at that time, fifty-two years. Trans. 416.

(d) As to the establishment of food standards subsequent to Circular No. 19: Since the establishment of these standards as announced in Circular No. 19, there have been no standards established by the Department at Washington. In fact, the Appropriation Act, approved June 30, 1906, four days after these standards were established in Circular No. 19, contains no language or provision, as did previous acts, authorizing or empowering the Secretary of Agriculture to establish standards, the language of the act being as follows:

"to enable the Secretary of Agriculture, in collaborating with the Association of Official Agricultural Chemists and such other experts as he may deem necessary to ascertain the purity of food products and determine what are regarded as adulterations therein." Trans. 84.

It will be observed that the provisions contained in the previous law as to establishing food standards is wholly omitted.

The next act appropriating money for the Agricultural Department, approved March 4, 1907, not only fails to make any provision for the establishing of food standards, but it omits the whole of that provision which had existed in previous acts authorizing the Secretary of Agriculture, in collaboration with the Association of Official Agricultural Chemists, etc., to inquire into the purity of food products. Trans. 84-85. The suggestion naturally arises as to the reasons for these omissions from the law. For explanation, see testimony, Trans. 89-90.

But the standards and definitions established in Circular No. 19 have never been changed, and they are the standards that were in force at the time chapter 557 of the laws of 1907 were enacted. *Rider a.*

(e) The legislation in Wisconsin in 1909: The Wisconsin Legislature, at its session in 1909, enacted into law the pure

courts.

United States v. Frank et al., 189 Fed. 195.

The opinion in the above case was filed January 21, 1911, about two years after the decision of the trial court and some eight months after the decision of the state supreme court in the two cases at bar. The defendants were convicted under an information charging them with selling an article of food in violation of the standards fixed in Circular No. 19. The court, at page 198, says:

"That the Secretary of Agriculture had the constitutional power under the act of 1903 to establish standards for purity of food products is not disputed, nor could it be under the decisions of the Supreme Court of the United States."

It was contended in the above case that, since the act of 1906 does not incorporate the standards fixed in Circular No. 19 by the Secretary of Agriculture, the act of the Secretary was legislative in character, and hence that no criminal offense could be predicated upon it. But the court, in answering this contention at page 199, says:

"The standard for food was fixed by the Department of Agriculture under the act of 1903. If one in the business of making food products would look for the standard he would find it in the promulgations of the Secretary of Agriculture made under direct authority of Congress. The act of 1903 does not describe any offense, but the act of 1906 says that if any article of food adulterated or misbranded is manufactured or transported so as to become the subject of interstate commerce, the maker, transporter, etc., shall be guilty of an offense. How shall it be known whether he is guilty of an offense or not? The answer is clear, by referring to the standards which have been established under the authority of Congress. The Secretary of Agriculture, under authority of Congress, fixed the standards of purity for certain foods. This is a fact upon which the law of 1906 operates. It is not a law. The law of 1906 under which the offense is charged to have been committed says what food is. The offense charged is that the defendant transported a food and that it was adulterated and misbranded. How is this to be ascertained? By looking to the standard as a fact."

The court then refers to and quotes from the case of *Coopersville Co-operative Creamery Co. v. Lemon*, 163 Fed. 145, which case arose under the oleomargarine statute of May 9, 1902, and then adds:

"It surely can make no difference that the authority to establish the standard was not in the act itself creating the offense as in the oleomargarine law. It may be well said that the food and drugs act of 1906 was made with special reference to the standards of food fixed by the Secretary of Agriculture under prior authority of Congress."

As is seen from the above, it is held that the standards fixed in Circular No. 19 are binding upon the courts. These are the standards which were in existence at the time the Wisconsin statute under consideration was adopted. The Wisconsin stat-

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food standards and definitions, practically unchanged, as recommended by the committee appointed at Mackinac, and these standards and definitions are substantially identical with Circular No. 19, and as to all of the terms and definitions involved in this litigation, the law is identical with Circular No. 19. See chaps. 398, 344 and 381, laws 1909, pp. 1044-1069, and especially pp. 1051-1053.

Chapter 205, laws 1907, p. 649, provided that in all prosecutions arising under the statutes for the manufacture and sale of an adulterated, or misbranded, article of food or drug, "The latest standards of purity for food products, established by the United States Secretary of Agriculture, shall be accepted as the legal standards, except in cases where other standards are specifically prescribed by the laws of this state."

But by chapter 398, laws 1909, p. 1044, the above law of 1907 was amended by writing into the statutes the standards and definitions as recommended by the committee appointed at Mackinac, and these standards as to sugars, syrups and glucose are copied word for word from Circular No. 19, the legislature of the state thereby expressly adopting such standards and definitions as the law of the state.

6. The term "corn syrup" unknown to the consumer in this country except during the past five or six years.

(1) *As to the unmixed article, now in dispute:* We do not think it will be contended that unmixed commercial glucose was ever sold or put upon the market in this country under any other name than glucose until after the decision of the three secretaries, Feb. 13, 1906. It is undisputed in this case that the Corn Products Refining Company and its predecessors in interest, always so sold this article until the above decision. They then changed their practice and for the reason, as stated by Dr. Wagner, "to bring about a uniformity in our business, in billing invoices, etc." Trans. 573.

See also testimony of W. J. Teckmeyer and Thomas F. Prendergast, large dealers in commercial glucose for the last fifteen or twenty years. Trans. 124-127.

(2) *As to sales of the mixed article:* The learned counsel, at page 8 of his brief, states in substance that glucose when mixed with other syrups for table use has for more than thirty years been known to the trade and consumers as corn syrup. We respectfully submit that the evidence shows beyond doubt that this article has never been known to the consumer under the term corn syrup until within the last five or six years preceding the trial of this case. A large amount of testimony was introduced by the defense to prove the proposition as stated by counsel, but an examination of the testimony will show that, while many of the witnesses on direct examination stated as contended by counsel, on cross-examination every one of the same witnesses, without exception, unless it be the witness Smith, whose testimony was shown to be wholly unreliable, conceded that so far as the consumer was concerned the article had never been sold to him by the retailer under the name of corn syrup until within the last five, six, or possibly seven years.

DR. T. B. WAGNER: Even the Corn Products Refining Company does not claim that it commenced to put out this product under the name of corn syrup prior to 1900. Trans. 370. Dr. Wagner further states that his company did not at this date put out all their mixtures under the name of corn syrup. Trans. 370-371. This was not done until 1903. Trans. 572. Dr. Wagner testified that one of the predecessors of the Corn Products Refining Company was the "Glucose Sugar Refining Company," and this company continued doing business under this name until within two and one-half years of the trial. Trans. 101-102. It sent out its goods branded as manufactured by the "Glucose Sugar Refining Company" up to within three years of the trial. Trans. 123. The fact is that up to about 1903 to 1905, the mixed product was sold upon the market to

the consumer, not under the name of corn syrup, but under such names as pride sorghum, honey drips, rock candy drips, pure Louisiana molasses, etc., etc. It was a dishonest business (and the Corn Products Refining Company was engaged in it, Trans. 299-305), since this mixture usually contained but a small percentage of any true or genuine syrup, the great bulk of the article being nothing more than common commercial glucose; and the various labels that had been used prior to 1905, in this state, to designate these mixtures sufficiently established the character of the business. As long as the product could be thus dishonestly sold, it was not profitable to designate the same as "corn syrup."

C. J. BLAIR: This witness is employed by a firm that printed all of the labels for the Corn Products Refining Company and its different predecessors, and for all of the different firms that were brought into the combine. The labels containing the term corn syrup did not begin until April, 1900. Trans. 164. This was the Kairomel brand. Trans. 164. This was the only corn syrup brand gotten out prior to 1902. Trans. 168. Hence, so far as the Corn Products Refining Company is concerned, and all the various companies that entered into the combine (see Trans. 167-168), no article was sold under the name of corn syrup prior to April, 1900, and from this date down to 1902, sales were made only under this one brand. Hence, at most, the term corn syrup was used for only seven years prior to the enactment of chapter 557, laws 1907, and except for one brand (and this was for the Michigan trade, Trans. 167), only five years before the Wisconsin law was enacted. It was not until 1903 that this company started to push the sales of this mixed article or compound under the name of "corn syrup." Trans. 272.

JOHN H. BRADSHAW: This witness testified for the defense, on direct examination, that he had been in the mixing business for forty-three years, and for thirty-eight years he had been "blending corn syrup with what is now known as refiners'

syrup," and, during all this time, had "been selling this article as corn syrup." Trans. 170-171.

But on cross-examination he frankly stated that for thirty-eight years he had always bought the unmixed article under the name of glucose, that it "was always known in the market as mixing glucose," and that he had "never heard of its being sold unmixed under any other name prior to within the last year"; that the article was "without perceptible flavor," that he never attempted to sell it in the form of table syrup. It couldn't be disposed of for that purpose in that form. In order to make it an article for table use, you had to mix it with certain syrups, "cane, sorghum, refiners' syrup or molasses." Trans. 171-173.

As to the mixed article, the witness testified that, until within the last three or four years, he had never sold the same under the name of corn syrup but under the different brands demanded by his customers, such as, to use his own language, "phoenix drips, fancy drips or brilliant honey drips, table syrup, rock candy drips. They were made up very largely of glucose. *This label or designation of the article so sold continued down to quite recently. Down to probably within three or four years.*" Trans. 174-174.

The above is characteristic of this whole class of testimony. It is undoubtedly a fact that this mixed article may have been termed, in some cases, in dealings between the manufacturer and wholesaler or jobber, "corn syrup" to distinguish it from the unmixed article, but it did not go to the consuming public as "corn syrup"; it was not advertised and sold as "corn syrup," but under the fraudulent names as stated above. Each retailer had his own particular fancy brand, and the jobber or wholesaler branded the article as desired, but never as corn syrup, until after the legislature made it illegal to sell under the above deceptive names. This is well illustrated in one of the orders sent to Mr. Bradshaw: "Please brand this syrup

'rock candy,' there being no law in Indiana to prohibit it." Trans. 447.

GEORGE P. CROSSMAN: One would suppose from the direct examination of this witness, that his principal business, from 1874 to 1902, had been the selling of "corn syrup." But it developed on cross-examination that the selling of "corn syrup" covered a very small, unimportant part of his business. Trans. 111. He claims to have sold this article during all of this period from 1874 to 1902. Notwithstanding, however, this long experience in handling this article, he was unable to say how the article was labeled when it went to the consumer. "I couldn't tell you how they were labeled. I never saw the packages themselves. I simply sent the orders to the refinery and they shipped it to the grocer. I don't know whether it was labeled sorghum mixture or fancy drips or New Orleans Molasses, or anything of the kind." Trans. 112. "How the article was represented as it was sold to the consumer I have no knowledge whatever, and have no knowledge how it was labeled when it was sold." Trans. 112-113.

Without question, the article sold by this witness went to the consumer, during all of these years, branded just as stated by Mr. Bradshaw, who, of all the witnesses called by the defense, had had the largest and most extensive experience in handling these glucose mixtures.

C. B. MCGLASSON: This witness, although vice-president of the National Wholesale Grocers Association, and although he had been secretary and treasurer of the McNeill & Higgins Grocery Company for some nine years, had never had his attention called to such an article as "corn syrup" until within five or six years before the time of giving his testimony. Trans. 104. When asked how long his company had sold this article, he answered, "three or four years." Trans. 106. On cross-examination, the longest period during which he claimed to have sold the article in Wisconsin was from four to five years prior to the giving of his testimony. Trans. 178.

MICHAEL JOHANNES: This witness, on direct examination, stated most broadly and positively that he had dealt in corn syrup for twenty-five years, and had always known it as corn syrup and sold it as such. Trans. 217-220.

Yet on cross-examination he testified that the term "corn syrup" was never put on the package of these mixtures prior to five or six years ago: "I don't think the words corn syrup were on any of the packages until we used the brands clover and karo, and these brands came into use five or six years ago." *"In all of my extensive business, prior to that date, this article which is now labeled and sold under the name of corn syrup never had attached to it in my business the term corn syrup."* . . . *The term corn syrup was not on the package."* Trans. 444-445 *"We sold it for a great many years under brands of our own such as golden drip, honey drip, fancy table syrup, white table drips, vanilla flavored drips, and perhaps, for a little while, under the name of rock candy drips."* Trans. 441. *"None of these brands contained the name 'corn' anywhere until within the last six or seven years."* Trans. 441. See also especially, Trans. 282-284. Thus it is shown that the statement by counsel at page 79 of the brief gives no idea as to what this witness testified. He admits on cross-examination all that the state contends for under this subdivision of the argument. An examination of his testimony on cross-examination plainly shows that when he says "customers call for 'corn syrup,'" what he means is that they call for "golden drip, honey drip, fancy table syrup," etc.

C. J. DEXTER: This witness testified strongly on direct examination that he had known the article "corn syrup" since 1880, and that he had known and sold the article under no other name. Trans. 311.

But see the letter of this witness, written to Mr. Emery, and his attempted explanation of the same. Trans. 318. This letter was written by the firm of which the witness was a member, and the first sentence reads: "We have a lot of *glucose* syrup

which is composed of *glucose* and cane syrup, but the percentage printed on the label is not in accordance with the law which takes effect Oct. 1," (1905). See further letter written to Commissioner Emery, Oct. 4, 1905, and the accompanying label, Exhibit 167. Trans. 332-333. This documentary evidence effectually disposes of the testimony of Mr. Dexter.

EMIL H. OTT: This witness is evidently mistaken in his direct examination in testifying that his firm had sold to consumers during the past ten years any syrup marked or labeled "corn syrup." This is made plain by an examination of the record. Trans. 407-410. He was not certain whether he had been selling "corn syrup" in cans longer than five or six years. Trans. 408. It is evident that the first sale by the witness or his firm of "corn syrup" was the "kairomel syrup," and this he states was eleven years ago. Trans. 408. But the undisputed evidence is that this brand was not used or printed prior to April 28, 1903. The witness admits that his firm sold "amber drips" and "sweet clover" and "honey drips" and "diamond drips." Trans. 409. This means that his firm did just what other grocery firms did in Wisconsin prior to the law of 1905. They sold these glucose mixtures under such names as stated above, and they were not marked "corn syrup" as they went to the consumer. Trans. 408-409.

A. A. SMITH: This witness is the present manager of the Corn Products Refining Company. The State asks the court to read the testimony of the witness as it appears in full in the record. Trans. 352-367. Summarized it is as follows: He claims that he sold as a traveling salesman "corn syrup" under that name for eleven years, from 1879 to 1890, in all the larger towns in Wisconsin, Minnesota, Iowa, Kansas, and out as far as the Pacific coast, selling to retailers only. During all of this time corn syrup was most favorably known, more popular and in greater demand than cane syrup, the only other competing syrup. He testifies that during all these years he heard

this article called for frequently throughout this territory by the consumer under the name of corn syrup.

He next testified that after this article had thus won such a favorable reputation under the name of "corn syrup," the retail dealers, along in 1895, demanded that it be put out under the names of "silver drips, amber drips, rock crystal syrup, rock crystal drips, rock candy drips, every imaginable name you can think of," to use the language of the witness (Trans. 359-360), thereby abandoning completely the use of this well known and popular term "corn syrup." When asked for an explanation of this sudden reversal of feeling toward this popular term, his only answer was, "so they (the retailers) could get a better price for their product." Trans. 359-361. He testified further that he never heard of any label being used with the name "corn syrup" until 1900.

When asked why it was that the trade in Wisconsin the past few years went back again to the use of the term "corn syrup," he was compelled to admit that it was because different states had prohibited the sale of these mixtures under these fancy names. Trans. 361.

It is unnecessary to comment further upon the testimony of this witness. It is absolutely unreliable.

C. E. REEDS: This witness was a traveling salesman for the Corn Products Refining Company. His knowledge of corn syrup dates from January 1, 1906. Trans. 347. His testimony was merely to the effect that from that date on there had been a market for corn syrup in the territory through which he had traveled. Trans. 347-348.

FREDERICK DOWNING: This witness was called by the State. He was then working in the laboratory of the Wisconsin Dairy and Food Commission. He worked for the Corn Products Refining Company from September to the latter part of December, 1907, at the plants of the company at Chicago, Granite City and Pekin, Illinois. At Granite City he was first assistant in the laboratory. It was a part of his work to prepare a daily

laboratory report upon a printed blank prepared by the company for this purpose, and the same kind of a blank was used at all of these three plants of the company. The witness had with him a copy of the record of his daily reports. These reports covered, among other things, to use the language of the reports, "acidity of glucose" and "purity of glucose," but nowhere, in any of these reports, was the term "corn syrup" used. Trans. 98-101. It is to be remembered that this practice of the company continued down to the last part of December, 1907.

OTHER WITNESSES: Counsel quotes from the testimony of Mr. Scott, Mr. Larson, Mr. Emery, Dr. Fischer, Mr. Bodenstein and Mr. Blackburn, to the effect that "corn syrup," so called, was being extensively sold in Wisconsin. It is conceded that since the law of 1905 was enacted, table syrup has been sold in Wisconsin under the name of "corn syrup," and it is further conceded that since the enactment of 1907, the Corn Products Refining Company has persistently violated the law, while other manufacturers or dealers have complied with the statute, selling the article as "glucose flavored with refiners' syrup." As stated by Mr. Blackburn, "I have since the act of 1907 been selling these mixtures under the name of glucose flavored with refiners' syrup." Trans. 129. While he did not sell the Karo brand under such label, "we have sold a similar product bought from the Corn Products Refining Company and others. We bought it under the name of 'glucose flavored with refiners' syrup.'" Trans. 131.

Testimony as to corn syrup being listed in trade journals, price lists, etc.: A large amount of testimony was introduced in the form of advertisements and trade journals, price lists, etc., for the purpose of showing that there was an article generally advertised and sold on the market under the name of "corn syrup." All of these advertisements, price lists, etc., were of recent date. We scarcely see how such testimony can have any bearing upon the question before the court. That the sales of these glucose mixtures under the name of corn

syrup have been extensive during the last five or six years, no one denies. It would be strange if this were not so, after the extensive, misleading and very deceptive advertising of this article by the Corn Products Refining Company. Moreover, there is no evidence that these advertisements were brought to the attention of the consumer.

As to the railroad freight schedules recognizing corn syrup: This testimony is all of recent date. Moreover, it merely shows a classification of freight based on value. The consumer knew nothing of the terms used.

7. The popularity of so-called "corn syrup" due almost wholly to dishonest advertising.

The advertisements put forth by the Corn Products Refining Company furnish an excellent reason for the adoption of the statute of 1907. In all that we say under this head, it must not be understood that we are criticising the usual custom of the dealer or manufacturer to puff or praise the article he manufactures or puts upon the market. We are dealing here with the element of dishonest competition as between this product and true syrups, and the deception practiced upon the consumer, as a reason for the enactment of the statute.

It is not often that a court has presented to it such conclusive evidence of systematic misrepresentation in the manufacture of and sale of a food product. Great pains were taken to prove how extensive the article here being considered had been advertised under the name of "corn syrup." The evidence shows that the sum of \$500,000 had been expended in the two campaigns, one in 1903-1904, and the other in 1907-1908. We are not here questioning the amount of money thus expended, nor the extent of this advertising. What we do wish to call attention to and emphasize is the fraudulent character of the advertising. Much evidence was introduced to show that "corn syrup" is a popular article of food, and the argument is made

that because of the large amount of capital invested in this industry, and the large amount of money expended in putting the article on the market under this name, it is unconstitutional to require the article to be sold under any other name. We concede that considerable capital is invested in the business of the Corn Products Refining Company, that it is a strong combination, having its headquarters at No. 26 Broadway, New York (Trans. 368), and that it has expended large sums of money in advertising. We do not think, however, that such facts as these should have much weight with the court as bearing on the constitutionality of the law in question, especially since the evidence shows that the present popularity of this article and its extensive sales are due, very largely, to deceptive and fraudulent advertising. It would be a queer rule of law that would prevent the legislative power of a state from requiring simple honesty in the labeling and sale of an article of food, on the ground that the manufacturer had incurred large expense in working up a trade for such article under a fraudulent or deceptive name. And right here it may be said, in answer to the contention made throughout the trial and renewed in this court, that there is a popular prejudice against "glucose," that some people think it to be, as Dr. Chandler so often volunteered the statement, "a nasty thing," if this company had expended half the money in advertising this article under its true, honest name, the prejudice they now complain of, if it exists, would long since have been removed.

We call the court's attention to but a few of the many examples of dishonest advertising on the part of the Corn Products Refining Company, the real defendant in these cases. There was introduced in evidence a book of advertisements, which has been returned as a part of the record to this court. Each advertisement is marked as a separate exhibit, and the book is pagged. The references are to the exhibits found in this book.

Exhibit 71, p. 2: An advertisement encircled with four ears of corn and containing the following statement:

"The new table delicacy with a *new* flavor. A pure, wholesome, delicious product of corn with all the strength giving elements of the grain contained."

There are at least three falsehoods in this statement. In the first place, the article contains no new flavor. This was admitted by McKinney, the advertising expert, as well as by all of the witnesses who testified on either side of the case. Trans. 158-159. In the next place, the advertisement is false in saying it is the product of corn. It is the product merely of the starch made from the corn. The next falsehood, in the advertisement, is the statement that the article contains "all the strength giving elements of the grain." The fact is that all the strength giving elements have been removed, that is the nitrogenous elements that build up the muscle, brain, bone, in other words, that build up strength.

Exhibit 74, p. 3: Here also an ear of corn forms a striking feature of the advertisement, and in the printed matter is the following:

"As a food product corn is the most nutritious cereal grown. *In the heart of the corn* is hidden the very elements of vim and vitality. . . . The pure extract of corn—is all the goodness of the kernel in a predigested form."

The fact is that "the heart of the corn" does not go into the starch from which glucose is made at all. Out of this an oil is made and not the starch. The article is not the "pure extract of corn" and does not contain "all the goodness of the kernel."

Exhibit 75, p. 8: Three large ears of corn form a background of the advertisement with the following printed matter:

"The pure, wholesome essence of corn with all the nutritive elements so characteristic of this energy and strength producing cereal retained."

When it is remembered that under the undisputed testimony "commercial glucose" contains nothing that is characteristic

of the grain corn, the falsity of this evidence is appreciated. Even Mr. McKinney, the expert who prepared these advertisements, was forced to admit that, since the product did not contain any of the flavor of grain corn, he would not think such an advertisement as the above an honest advertisement.

"Q. You wouldn't have advertised it as you have here in Exhibit 41, which represents two large ears of corn put in pyramidal form, if you had known at the time that that article that you were advertising hadn't any of the characteristic flavor or quality of corn or grain, you wouldn't have thought it right to advertise it in that way? A. No; if I was satisfied that it hadn't, I wouldn't. Q. You would think that that would be intended to deceive people, wouldn't you? A. If it wasn't so." Trans. 151.

What does the public, the consumer, understand by such language as the above, "wholesome essence of corn, with all the nutritive elements so characteristic of this energy and strength producing cereal retained?" It would be difficult to crowd more falsehood into the same number of words.

Exhibit 76, p. 9: Ears of corn again form the background of the advertisement, with the following printed matter:

"A golden syrup so good, pure and wholesome."

Why was this term "golden" used? The testimony makes the reason plain. This was the designation well understood by the consumer and by the trade for the finest quality of syrup; we find the term used in these advertisements again and again. See Ex. 76, p. 10.

Exhibit 8, p. 11: Here a large ear of corn forms the background of the advertisement with capital letters at the head,

"GOLDEN GRAIN."

And then follows this:

"As a food product corn is the most nutritious cereal grown. In the heart of the kernel is hidden the very elements of vim and vitality. * * * A pure extract of corn—with all the goodness of the kernel in a pure form."

Why was it that this company, in the above advertisement, printed in large capital letters at the head of this advertisement, the words "golden grain?" Had the product they were selling been manufactured from the starch of the potato, it would have been just as honest, so far as the consumer is concerned, to have placed at the head of the advertisement the same letters, "golden grain."

Exhibit 38, p. 13: The following is the printed part of the advertisement:

"KARO CORN SYRUP"

"is made from that portion of the corn kernel which contains the great strength-giving, energy-producing, and flesh-forming elements."

Note the dishonesty in the above language. It is a syrup that is made from a *particular portion* of the kernel of the corn, and this portion is declared to contain the "greatest strength giving and energy producing and flesh forming elements." The fact is that all of the elements of the kernel which give strength or form flesh, are excluded.

See further especially Exhibit 39, p. 14, Exhibits 101 and 102, pp. 76 and 77, and Exhibits on pp. 78 and 79. These are all to emphasize especially the "golden syrup made from golden grain," all of the ears of corn being highly colored ears. See p. 156.

The foregoing fully bears out the testimony of the defendant's witness, Mr. McKinney:

"It was our direct intention in these various advertisements to do about everything that would be possible with the pictorial art to represent this (corn syrup) as a product coming direct from the kernel of the corn." Trans. 156.

The point we emphasize in connection with these fraudulent advertisements is that the law governing the manufacture and sale of food products should be so framed as to make it difficult and not easy, by such dishonest advertising as the above, to

deceive and mislead the public, and further, that the alleged extensive sales of this cheap and inferior article, as compared with true syrups, are due largely to this dishonest advertising.

It may be said that the legislature may make such advertising a criminal offense. True, it may do so if it sees fit. But such a law would not be easily executed. The guilty party does not live in the state and has no agent who could be easily reached. It is peculiarly within the province of the legislature to determine how it can best prevent deception and fraud, how it can best protect the people of the state against the imposition of vendors of dishonest food products.

The company that put out the above advertisements, and others like them, knew that it was practicing a fraud upon the public. The evidence shows that all these advertisements were submitted to and approved by the officials of this company, and it establishes a most persistent and long continued method of dishonesty in the sale of a food product. And it is to be presumed that the legislature in the enactment of this law was familiar with this dishonest advertising.

Under the foregoing testimony, the learned trial court reached the following conclusion:

"The evidence convinces the court that the public generally understand 'a syrup' to be the concentrated sap of a sugar-producing plant. The term 'corn syrup' naturally suggests that the product is a syrup produced from corn. Certainly the name carries no suggestion that it is produced by the action of acid on starch, which may be made from a score of different substances as well as from corn. But even if the product here in question were properly termed a syrup, that is not the controlling fact. As was said of oleo-margarine: 'It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other.' *Plumley v. Massachusetts*, 155 U. S. 461, 465. Even if this product be a syrup, the difference in the cost of producing it, if no other factor were involved, would make it a fraud to sell this article to the public under a name that

induces the belief that it is procuring a syrup produced in the usual way by boiling down the sap of a sugar producing plant." Trans. 26.

The above finding of the trial court is in all respects sustained by the decision of the supreme court. Trans. 486-487.

We respectfully submit, with all due respect to the eminent counsel for the defendants, that these findings of the trial and supreme courts are, not only supported by the evidence, but by the great weight of the evidence. Hence, under the well recognized rule of this court, such findings will not be reviewed by a writ of error.

II.

Chapter 557, Laws of 1907, is not invalid because in violation of the commerce clause of the federal constitution or of the federal Food and Drugs Act of 1906.

Counsel for defendants, in his brief in the court below, made the following concession:

"There can be no doubt, under the authorities, that a sale, in order to be an ingredient of interstate commerce, must be made by the importer and in the unbroken original package; and that, in the absence of congressional legislation to the contrary, the original package is that in which the article is usually, in good faith, shipped from the manufacturer to the wholesaler, or from the wholesaler to the retailer; (*Austin v. Tenn.*, 179 U. S. 343), and also that where the importer breaks up this original package and sells from it any of the smaller packages contained therein, the entire contents of such original package loses its distinctive character as an import and becomes thereby mixed with and incorporated into the mass of the property of the state and subject to its police power."

We do not understand that this concession is withdrawn in the argument by counsel before this court.

The facts in this case are undisputed. It is conceded that the sales in question were of half gallon cans which had been shipped by wholesale grocers in Chicago to defendant retailers at Oregon, in wooden boxes containing a dozen one-half gallon cans each, which boxes had been opened, the cans removed and placed on the shelves of defendants for sale, and the boxes destroyed; that the boxes were branded as required by the federal law; and that not only were the cans thus shipped in boxes in the present case, but such was the uniform method of shipment and transportation thereof to the retailer, by the jobber or wholesaler. Trans. 127-128, 135, 35-37, 113-114.

It is obvious that the above concessions of law and fact would defeat the claim of the defendants in this case that they are protected against their violation of the state law by the commerce clause of the constitution or the Act of 1906, unless such result is saved by the further claim, which counsel makes, that the entire police power of the state with respect to the protection of the consumers of the state from adulterations of and fraud in the sale of nearly all kinds of foods and drugs not produced in the state, has been lawfully displaced by congress by the enactment, under its power to regulate commerce between the states, of the Food and Drugs Act of 1906.

This claim is so at variance with the general understanding with respect to the limits of congressional authority under the commerce clause, and with respect to the sovereignty of the state in the matter of purely internal police regulations affecting the health and welfare of its citizens that the court should be slow to find that congress has, by the act in question, attempted any such radical invasion of the usually accepted notions of state authority, and it should be slow to uphold its right so to do.

First. All the authorities agree that (at least in the absence of congressional action otherwise indicating), an article ceases to be the subject of interstate commerce, and becomes subject to the police power of the state, when the original package in which it is usually, and in good faith shipped, has been received and broken by the importer, or when he has made the first sale thereof, in the original package so received.

Cook v. Marshall County, 196 U. S. 261.

Austin v. Tenn., 179 U. S. 343.

May v. New Orleans, 178 U. S. 496.

Greek-American Sponge Co. v. Richardson Drug Co., 124 Wis. 469.

Second. The mere fact that congress, in the exercise of its power to regulate commerce, has legislated upon the general

subject of the transportation and sale of an article of interstate commerce, does not, in itself, take away the right of the state, in the exercise of its police power, to make regulations concerning the same article as a subject of interstate commerce, at least so long as such state regulations do not conflict with the federal regulation.

That congressional regulation does not exclude state regulation except so far as the former, *lawfully exercised*, conflicts with the latter, is well settled.

Reid v. Colorado, 187 U. S. 137.

Asbell v. Kansas, 209 U. S. 251.

Crossman v. Lurman, 192 U. S. 189.

State v. C. M. & St. P. Ry. Co., 136 Wis. 407, 416-417.

Chicago, M. & St. P. Ry. Co. v. Solan, 169 U. S. 133.

M. K. & T. Ry. Co. v. Haber, 169 U. S. 613, 624.

Gulf, etc., Ry. Co. v. Hefley, 158 U. S. 98, 104.

W. U. Telegraph Co. v. James, 162 U. S. 650, 654.

Palapasco Guano Co. v. North Carolina Board of Agriculture, 171 U. S. 345.

Penn. R. Co. v. Hughes, 191 U. S. 477.

Savage v. Scovell, 171 Fed. 566.

Northern P. R. Co. v. Washington, 222 U. S. 370, 379.

Southern R. Co. v. Reid, 222 U. S. 424, 442.

Savage v. Jones, 225 U. S. 501.

In *Reid v. Colorado*, 187 U. S. 137, above, a statute of the state made it unlawful to bring into this state cattle or horses having an infectious disease, or cattle or horses from territory south of a certain parallel of latitude unless they had first been held for ninety days before being brought into the state at some point north of such parallel of latitude. An act of congress prohibited transportation into the state "of any live stock *known* to be affected with any contagious, infectious or communicable disease." The court, on page 148, said:

"It should never be held that congress intends to supercede or by its legislation suspend the exercise of the police powers of the states, even when it may do so, unless its purpose to effect that result is clearly manifested. This court has said—and the principle has been often reaffirmed—that 'in the application of this principle of supremacy of an act of congress in a case where the state law is but the exercise of a reserved power, the repugnance or conflict should be direct and positive so that the two acts could not be reconciled or consistently stand together.'"

Speaking of the contention that the provision of the federal law prohibiting the importation into the state of live stock "known to be affected" with an infectious disease displaced the power of the state to absolutely exclude from the state animals having such a disease, or animals from below the prescribed parallel of latitude, this court on page 149, said:

"But this provision (of the federal law) does not cover the entire subject of the transporting or shipping of diseased livestock from one state to another. The owner of such stock, when bringing them into another state, may not know them to be diseased; but they may, in fact, be diseased, or the circumstances may be such as fairly to authorize the state into which they are about to be brought to take such precautionary measures as will reasonably guard its own domestic animals against danger from contagious, infectious or communicable diseases. The act of congress left the state free to cover that field by such regulations as it deemed appropriate, and which only incidentally affected the freedom of interstate commerce. Congress went no farther than to make it an offense against the United States for anyone *knowingly* to take or send from one state or territory to another state or territory or into the District of Columbia, or from the District into any state, live stock affected with infectious or communicable disease. The Animal Industry Act did not make it an offense against the United States to send from one state into another live stock which the shipper did not know were diseased. The offense charged upon the defendant in the state court was not the introduction into Colorado of cattle that he knew to be diseased. * * * His knowledge as to the actual condition of the cattle was of no

consequence under the state enactment or under the charge made.

Our conclusion is that the statute of Colorado as here involved does not cover the same ground as the act of congress and therefore is not inconsistent with that act; and its constitutionality is not to be questioned unless it be in violation of the constitution of the United States, independently of any legislation by congress."

In *State v. C. M. & St. P. Ry. Co.*, 136 Wis. 407, the court, citing the federal cases above referred to, on page 416, said:

"It may not be out of place to reiterate what has already been said, that the right of the state, in the sincere exercise of its police power to protect its citizens generally from any perils resulting from excessive hours of labor by railroad employees, is in no way impaired by the federal constitution except as such legislation shall interfere with or restrain interstate commerce *in a respect in which congress has deemed wise to regulate it*. The conduct of persons within the state inimical to public safety is within the police control of the state, whether those persons be engaged in interstate commerce or not, so long as restrictions upon their conduct *will not affect the interstate commerce*." (The italics are ours.)

Savage v. Jones, above, involved the construction of an Indiana statute, which provided, in substance, that before any stock food could be sold in the state, *even in the original package*, the persons selling or offering to sell it should file with the state chemist a sworn statement, giving the name of the manufacturer and the location of his principal office, the trade name, brand, or trade mark under which the article was to be sold, the ingredients from which it was compounded, the minimum percentage of crude fat and crude protein (the percentages allowed by the law being stated), the maximum percentage of crude fibre, which the person offering the article for sale guaranteed it to contain, these percentages to be determined by the methods recommended by the Association of Official Agricultural Chemists of the United States. The act also provided that the state chemist might "refuse the registration of

any feeding stuff under a name which would be misleading as to the materials of which it is made, or when the percentage of crude fibre is above or the percentage of crude fat or crude protein below the standards for concentrated commercial feeding stuffs."

It was contended that this law was invalid as being in conflict with the Food and Drugs Act of June 30, 1906. But this court, in line with the decisions cited and quoted from above, held the law valid. After stating the object and purpose of the pure food law and its limitations, this court adds:

"Can it be said that congress, nevertheless, has denied to the state, with respect to the feeding stuffs coming from another state, and sold in the original packages, the power the state otherwise would have to prevent imposition upon the public by making a reasonable and nondiscriminatory provision for the disclosure of ingredients, and for inspection and analysis? If there be such denial, it is not to be found in any express declaration to that effect."

This court then considers whether a denial to the state of Indiana of the exercise of its power, in the statute quoted, is necessarily implied in the Federal statute, and concludes there was no such implied prohibition:

"That state (Indiana) has determined that it is necessary, in order to secure proper protection from deception, that purchasers of the described feeding stuffs should be suitably informed of what they are buying and has made reasonable provision for disclosure of ingredients, by certificate and label, and for inspection and analysis. The requirements, the enforcement of which the bill seeks to enjoin, are not in any way in conflict with the provisions of the Federal Act."

Third. The act of 1906 does not expressly or impliedly operate upon the original package of commerce, after it has been broken, or after its first sale as such by the importer, but on the contrary, the act clearly shows the congressional intention to leave the article subject to state regulation after it has so ceased to be the subject of interstate commerce; and, therefore, there is no conflict between the federal act and the state law.

In determining whether the federal act conflicts with and displaces the state law, regard should be had to the proposition, before referred to, that,

"It should never be held that congress intends to supercede or by its legislation suspend the exercise of the police powers of the states, even when it may do so, unless its purpose to effect that result is clearly manifested The repugnance or conflict should be direct and positive so that the two acts could not be reconciled or consistently stand together."

Reid v. Colorado, 187 U. S. 137, 148.

Asbell v. Kansas, 209 U. S. 251, 257.

By the act of 1906, congress in language too plain to admit of doubt or misconstruction drew the line between its powers of regulation under the commerce clause and those of the state under its police power, as that line had theretofore been uniformly drawn by the courts, and limited the operation of the act within the states to food and drugs while they were the subjects of interstate commerce and before they became a part of the general property of the states.

Two things are declared to be unlawful and are prohibited by the act:

(1) The "*manufacture within any Territory or the District of Columbia*" of "any article of food or drug which is adulterated or misbranded within the meaning of this act." (Sec. 1.)

(2) "*The introduction into any State or Territory or the District of Columbia from any other state or Territory or the District of Columbia, or from any foreign country,*" of food or drugs so adulterated or misbranded. (Sec. 2)

There is thus expressed in clearest terms that, except as to the Territories and District of Columbia, *where congress had power to fully regulate not only transportation, but manufacture*, there could be no violation of the act except by "the introduction" of an article into a state from some other state, terri-

tory, or foreign country, and the subsequent disposition and regulation of the article was not made a violation of the law or the subject of its operation.

As there are but two offenses created by the law, so penalties are provided for these two offenses, and for these only, one for the unlawful manufacture within the Territories and the District of Columbia, and the other covering the "introduction" of the article into one state from another, the word "introduction" here being used to cover whatever acts are necessary to complete within the state the interstate transaction as described in the statute. The words in which the penalty for the latter offense, that is the "introduction," is phrased are particularly significant as showing not only that congress was merely attempting to legislate with respect to the articles in question while they were the subjects of interstate commerce, but as showing that congress left nothing to speculation or uncertainty as to what was intended by the phrase "introduction into any state," or as to when articles should be deemed to have passed outside the domain of interstate commerce and the operation of the act.

Sec. 2 of the act, after prohibiting the "introduction" of the adulterated or misbranded article into any state from another state, provides that "any person who shall ship or deliver for shipment from any state * * * to any other state * * * or who shall receive in any state * * * from any other state * * * and having so received, shall deliver, in *original, unbroken packages*, for pay or otherwise, or offer to deliver to any other person, any such article so adulterated or misbranded within the meaning of this act, or any person who shall sell or offer for sale in the District of Columbia or the Territories of the United States, any such adulterated or misbranded food or drugs, or export or offer to export the same to any foreign country, shall be guilty of a misdemeanor, and for such offense be fined," etc.

It will be observed from the foregoing provisions of sec. 2 of the act:

(1) That, as to the *shipper*, the penalty thereof only reaches him who makes an *interstate shipment*.

(2) That as to the *importer* in any *state* the penalty only reaches him who, having received an interstate shipment, delivers or offers to deliver the same in the "*original unbroken package*" to any other person, thus making the *original importer* alone subject to the penalty, and then only when he shall sell or offer to sell the article in the *original unbroken package* in which he received it. It is not a violation of the statute merely to receive the article in the unbroken package.

United States v. Five Boxes of Asafoetida, 181 Fed. 561, 564.

(3) That as to an importer within the District of Columbia or the Territories, however, where the jurisdiction of congress is not limited to the exercise of the powers given by the interstate commerce clause, the sale or offering for sale of the adulterated or misbranded article, whether in the original package or not, subjects him to the penalty of the act.

The distinction thus made between sale or attempted sale by the importer within a state and the sale or attempted sale within the District of Columbia or in any of the Territories, in the former of which cases the same must be in the "*original, unbroken package*," whereas not so limited in the latter, is again evidenced in sec. 3 of the act making it the duty of the Secretary of the Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor to collect and examine specimens of food and drugs "manufactured or offered for sale in the District of Columbia, or in any Territory of the United States," without any limitation that they shall be offered for sale in the unbroken package, but as to articles which shall be "offered for sale" in any *state*, limiting the duty of examination to those articles which shall be thus offered for sale "in unbroken packages."

The same distinction is again evidenced in sec. 10 of the act, whereby a further penalty is provided, operating not upon the importer, but by way of confiscation upon the goods themselves. By this section only such articles may be confiscated in the hands of an *importer* within the *state* as are "unloaded, unsold, or in original, unbroken packages" whereas, as to articles within the District of Columbia or the Territories the penalty of confiscation attaches to any article, whether in the original, unbroken package or not, which may be sold or offered for sale.

The foregoing provisions of the act demonstrate not only that congress did not attempt to extend the operation of the act beyond the first sale made by the importer within a state in the "unbroken, original package" but further demonstrate that the "unbroken original package" was not the bottle, cask, can, or other unit of the article, but was something wholly different therefrom. This conclusion must follow from the terms of the act itself, since as to the importers within the Territories or the District of Columbia, it is the article itself which is referred to, with no limitation as to its being in the "original, unbroken package," whereas, as to the importer within a state, it is not the article itself which is spoken of, but the article in the "original, unbroken package." *As to the importer within a state*, the sale or attempted sale of the article, after the breaking of the original package, is not made an offense, nor is any penalty provided therefor, either as against the importer, or by way of confiscation of the article.

If, however, the act itself left any doubt as to what was meant by the "original, unbroken package" of secs. 2 and 10, or the "unbroken package" of sec. 3, the doubt would be quickly removed by a recurrence to fundamental principles of construction. These principles are expressed in decision number 86 of the Federal Board of Food and Drug Inspection, approved by the Secretary of Agriculture, in the following language:

"In the enforcement and administration of these provisions it is necessary to determine what is an 'original, unbroken package' or an 'unbroken package.' For the purpose of such determination it is not permissible to resort to the common and popular understanding of these words for the reason that they have received a *special* meaning and import when applied to the law of interstate and foreign commerce through numerous decisions upon the commerce clause of the Constitution and were employed in the food and drugs act in that sense."

As further shown in the decision last referred to, the terms "original, unbroken package" as used in sec. 2 and 10 of the act, and "unbroken package" as used in sec. 3 of the act, had prior to its adoption been judicially treated as synonymous.

Low et al v. Austin, 80 U. S. 29.

U. S. v. Fox, Fed. Cas. No. 15155.

And the terms had, prior to the adoption of the act, to quote further from the decision last referred to, received the following well accepted definition:

"From a consideration of all the decisions and upon the basis of common understanding of the words, it seems that an original package within the meaning of the food and drugs act is the unit, complete in itself, delivered by the shipper to the carrier addressed to the consignee, and received by him in the identical condition in which it was sent, without separation of the contents in any manner."

Hamilton Food & Drugs, p. 971.
To which should be added the qualification, declared in *Austin v. Tenn.*, 179 U. S. 343, that "where a party, in transporting goods from one state to another, selects an unusual method for the express purpose of evading or defying the police laws of the latter state the commerce clause of the federal constitution" (and, for the same reason, an act of congress) "cannot be invoked as a cover for fraudulent dealings."

That the foregoing was the judicially accepted definition of "original package," "original, unbroken package," and "un-

broken package," at the time of the adoption of the act of 1906, see the following authorities:

Brown v. Md., 25 U. S. 419 (12 Wheat.)

Low v. Austin, 80 U. S. 29.

Cook v. Pa., 97 U. S. 566.

Leisy v. Hardin, 135 U. S. 100.

Vance v. Vandercook Co., 170 U. S. 438.

Austin v. Tenn., 179 U. S. 343.

Guckenheimer v. Sellers, 81 Fed. 997.

May v. New Orleans, 178 U. S. 496.

In re Harmon, 43 Fed. 372.

Cook v. Marshall Co., 196 U. S. 261.

Schollenberger v. Pa., 171 U. S. 1.

U. S. v. Fox, 25 Fed. Cas. No. 15155.

State ex rel. v. Board, 15 So. (La.) 10.

Com. v. Schollenberger, 156 Pa. St. 201.

Thornton Food Storage (1912) 143, 151-152
It is thus seen that not only is the operation of the act of 1906 limited to the first sale by the original importer in the unbroken package in which it is actually and in good faith, and in the usual course, received by him, and thereby that the act does not attempt to regulate the article after such first sale, or after such package has been broken by the importer, or to impair the exercise by the state of its police power over the same. The act does not, however, stop here. By at least two significant provisions thereof, the right of the state to take hold of the article where congress left it, and to subject it to the exercise of the police power of the state, is expressly recognized.

By sec. 3 of the act, while the power and duty is given to the specified department secretaries to collect and examine specimens of food and drugs imported into a *state* are confined to those "offered for sale in *unbroken packages* in any state other than that in which they shall have been respectively manufactured or produced," yet they are also required to make inspection of any foods or drugs "which may be submitted for exami-

nation by the chief health, food or drug officer of any *state*, Territory, or the District of Columbia," thereby importing clear congressional recognition that as to the foods and drugs referred to in the act, the state would also have its police regulations and its "health, food, or drug officer" to assist in their administration.

Again, by sec. 10 of the act, which provides for the penalty by confiscation, there is a proviso that the bond which may be given for the release of labeled goods shall be conditioned not only that the articles "shall not be sold or otherwise disposed of contrary to the provisions of this act," but that they shall not be sold or disposed of contrary to "the laws of any *state*, Territory, District of Columbia or insular possession"; this language unmistakably implying congressional recognition that the states might have laws regulating the disposition of the foods or drugs which might be thus seized under the federal act, and that such laws were not only intended to be respected by congress, but that congress intended to aid in their enforcement by preventing one who had violated the federal act from regaining possession of his property until he should have given security not only against the violation of the federal act, but against the violation of such regulations as might have been prescribed by the state.

It is contended by counsel for defendants, at pp. 39-41 of the brief, that the purpose of the federal act was to protect the consumer, and that this cannot effectually be done unless the provisions of the act with respect to adulteration and misbranding shall be held to apply to the unit of the interstate shipment, rather than to the package in which the units are contained and shipped. In support of his contention he refers to certain provisions of secs. 7 and 8 of the act which define what shall constitute an adulteration or a misbranding, arguing that these provisions relate to the food or drug article rather than to the package of transportation. This might all be conceded without in any way impairing the force of what has before

been said. Congress, in the exercise of its power to regulate commerce between the states, might well say that there should be no adulteration of the article itself, and no misbranding of the individual container of the article, yet it would not follow from this that it had attempted to exercise its authority, to the exclusion of state authority, to regulate the disposition of the article after it had ceased to be the subject of interstate commerce. Such a provision as to adulteration or misbranding of the article itself would be merely a part of its regulation as a subject of interstate commerce, and not an attempt to extend the interstate commerce jurisdiction of congress. In other words, congress would merely say that the food or drug calculated for interstate shipment must be turned over to the importer or consignee within a state other than the state of shipment without adulteration and without misbranding. This would tend to the protection of the consumer in so far as the importer might not receive the adulterated or misbranded article, or offer it for sale in the original package in which it was received, without violating the law, and thereby the general purpose of congress to protect the consumer would in a measure be accomplished. But it is entirely consistent with this view, that the act should not attempt to operate upon the article after its first sale in the original package of transportation, or after such package had been broken. The situation would merely be presented that congress had protected the consumer to such an extent as the article was the subject of interstate regulation, and then turned it over to the state authorities to make such further regulation with respect to the article as a part of the general property of the state as it might think the health or welfare of the people of the state demanded.

Congress, by the act in question has manifestly done no more than this, since it has, as before seen, refrained from either making it an offense to sell, or providing a penalty for the sale of the adulterated or misbranded article after its sale by the

original importer, or after the original package in which it was shipped has been broken. Indeed we do not think it within the power of congress to punish anyone for the sale of an article which has ceased to be an article of interstate commerce. To say that congress by providing against the adulteration or misbranding of the article itself thereby intended to preempt the field of state regulation is to convict congress of an attempt to make every sale from the shelves of a retail grocer of canned goods, and the sale of every pill of a retail druggist, brought from without the state, a transaction of interstate commerce.

Moreover, the provisions of sec. 7 and 8 of the act, with respect to what shall constitute adulteration or misbranding, must be read in the light of the other provisions of the act that manufacture and sale in the Territories and District of Columbia, are prohibited, while as to the importer within a state, only a sale or attempted sale in the "original, unbroken package" is prohibited. So read the provisions with respect to adulteration and branding will be given complete application as applied to the exporter and as applied to the article within the Territories or the District of Columbia, but as applied to state importation will be made to harmonize with the fact that congress has not attempted to control the article except in the original package. Thus the provisions of sec. 8 to the effect that an article shall be deemed to be misbranded if "offered for sale" under the name of another article, or so as to "deceive or mislead the purchaser" should, as applied to the sale of the article in the Territories or District of Columbia, be construed to mean any sale, or any purchaser, whereas, as applied to the sale within a state of an article shipped from without the same words would necessarily be construed to mean the sale by the original importer to the first purchaser from him in the original unbroken package. *The Employer's Liability Case, 207 U.S.*

This court, in its most recent decisions, has construed the Food and Drugs Act as contended for by the state in these cases:

Hipolite Egg Co. v. United States, 220 U. S. 45, 54.
Savage v. Jones, 225 U. S. 501.

In the first case cited above the court at p. 54 says:

"The object of the law is to keep adulterated articles out of the channels of interstate commerce, or, if they enter such commerce, to condemn them while being transported or when they have reached their destination, provided they remain unloaded, unsold, or in unbroken, original packages."

This language is quoted with approval in the case of *Savage v. Jones*, above.

That the federal act in question is not to be construed as displacing state authority to regulate the adulteration or branding of foods which have been shipped from without the state, and thereby become subject to the federal law, but which have been removed from the original package of shipment, see the following authorities:

Armour & Co. v. Bird, 123 N. W. 580, (Dec., 1909).
Savage v. Scovell, 171 Fed. 566, (1908).

Fourth. It is conceded by the plaintiff that the Food and Drugs Act covers the sale of the imported article in the original package. Counsel is plainly in error when he states, at pp. 22-26 of the brief, that the court below held otherwise. The lower court made no such decision. The court below quotes the provisions of sec. 2 of the act (Trans. 484) and then adds:

"In so far as this act regulates interstate commerce in articles of food, it is a prohibition of the introduction of adulterated and misbranded articles of food from one state into another, and provides a punishment if any person shall ship or deliver for shipment such an article from one state to another, or who shall deliver it in the original, unbroken packages for pay or otherwise, or offer to deliver it to any person, or any person selling it or offering it for sale in the District of Columbia or the Territories of the United States. The first paragraph of this section forbids any person shipping and delivering for shipment the prohibited article from one state to another, and receiving such an article into a

state, and, after having so received it, delivering it in the original unbroken packages for pay or otherwise, or offering to so deliver it." Trans. 484.

It is here seen that the court states, in language too plain to be misunderstood, that the act covers the sale by the importer in the original package. There then follows this sentence, which is the language relied upon by counsel for the defendants: "It will be observed that this part of the act does attempt to regulate the traffic in these articles in the course of their importation from one state into another, without reference to a sale thereof after arrival at their destination."

But this language, "without reference to a sale thereof after arrival at their destination," plainly refers to a sale that may be made after the article has ceased to be an article of interstate commerce, that is, after it has either been once sold in the original package, or a sale is made by the importer after the property has been removed from the original package and become commingled with other property within the state. The court is here drawing the distinction made in the statute between sales of articles imported from one state into another, and sales made in the District of Columbia and the Territories, and so the court adds:

"The terms of the act plainly indicate that congress extended its regulation expressly to the acts of sales in the District of Columbia and the Territories (without reference to whether the articles were the subject of interstate commerce or not) and the provision of that regulation did not extend to the act of sale of an importation from one state to another (that is, such sale as above described, after the article had ceased to be one of interstate commerce). It is evident from these provisions of the act that congress intended to extend its regulation of this traffic in the District of Columbia and the Territories *beyond the traffic within the channels of interstate commerce*, obviously for the reason that the legislative function to prescribe all police regulations within these jurisdictions devolves on it, while in the several states of the Union, this function devolves on the legislatures." Trans. 485.

We fail to see how the opinion of the lower court can, when taken as a whole, receive any such construction as is contended for by counsel for defendants. Moreover, no such contention has ever been made either in the trial or in the supreme court of the state by counsel for the state.

Fifth. A construction of the act of 1906, which would make it operate upon the contents of the original package of shipment or upon such original package after its first sale by the importer, would render the act, thus far at least, invalid, as an unconstitutional invasion by congress of the power reserved to the states to regulate their own internal affairs.

The regulation of the internal affairs of a state by congress is as unconstitutional as is the direct attempt by a state to regulate interstate commerce.

Ill. etc. R. R. v. McKendree, 203 U. S. 514.

Geer v. Connecticut, 161 U. S. 519, 531.

Covington etc. Bridge Co. v. Ky., 154 U. S. 204, 210.

Sands v. Manistee R. I. Co., 123 U. S. 288, 295.

Cases. The Daniel Ball, 10 Wall. 557, 564.

463, 502 U. S. v. DeWitt, 9 Wall. 41.

Gibbons v. Ogden, 9 Wheat, 1, 186.

License Cases, 5 How. 504, 574.

Holder v. United States, 1213 U. S., 139.

In *Ill. etc. R. R. Co. v. McKendree*, above, this court held an order of the Secretary of Agriculture void because it established a quarantine line in such manner as to cover in one indivisible order both interstate and intrastate commerce.

In the *Daniel Ball* case, above, this court states:

"There is undoubtedly an internal commerce which is subject to the control of the States. The power delegated to Congress is limited to commerce, among the several States, with foreign nations and with the Indian tribes. This limitation necessarily excludes from the Federal control, commerce not thus designated, and of course that commerce which is carried on entirely within the limits of a State and does not extend to or affect other States."

That "congress has no power to interfere with police regulations relating exclusively to the internal trade of the state," has been repeatedly determined by this court.

Covington etc. Bridge Co. v. Ky., 154 U. S. 204, 210.

That the sale of individual articles from the shelves of a retail dealer so remotely affects interstate commerce as to be a proper subject of state police regulation is elsewhere shown, and is too manifest to require argument.

Counsel says that an article "cannot at one and the same time be the subject of state and federal regulation as to branding, especially when such regulations are in conflict."

If this be true, is the sale by the grocer from his shelves of an article of food a matter which affects the internal affairs of the state, or is it commerce between the states within the meaning of the federal constitution?

If an internal affair of the state, and not interstate commerce, as hereinbefore shown, then upon what theory can congress lawfully regulate the transaction, or displace state regulation of it?

Counsel concedes, at pp. 35-36 of the brief, that under the decisions of this court "an article remains in interstate commerce only so long as it is contained in the package in which such article is usually, in good faith, shipped from the manufacturer to the wholesaler, or from the wholesaler to the retailer, and that it ceases to be in interstate commerce when removed from such package," but he contends that this is "a rule adopted by the court in the absence of congressional regulation declaring otherwise in a particular class of cases," and that congress has the power to declare otherwise and that it has done so in the Food and Drugs Act. That is, according to his contention, congress has the power to control the sale of food products within the state, after they have been removed from the original package of commerce and have become commingled with the property within the state. We have already

shown that congress has not attempted to do any such thing by the enactment of the Food and Drugs Act, nor is congress vested with any such power.

Ex parte Agnew, 89 Neb. 306; 131 N. W. 817-819.

At the latter page the court says:

"The bundles or original packages having been broken after their delivery to the consignee within this state, it has entirely lost its distinctive interstate quality and has become subject alone to the jurisdiction of the state, and an act or law of Congress can follow it no further. If the state should see proper, as in this case, to enact laws for the purpose of protecting its citizens against fraud or deception in weights or quantities in the matter of the *sale* of such goods as are clearly within its exclusive jurisdiction, we are wholly unable to see by what right or authority Congress can interfere."

Such an act would be in plain violation of the United States constitution. It would be an invasion of the powers expressly reserved to the state and would be in the face of the repeated decisions of this court. Counsel is unable to cite this court to any act of congress prior to the Food and Drugs Act which attempts to thus control commerce or trade wholly within a state. He refers to the Wilson Bill, which gave a prohibition state the power to interfere with the sale of liquors while still in the original package, and then asks, "If congress possesses the power to divest an article of its character as a subject of interstate commerce at an earlier period of time than would ordinarily be the case under the original package rule adopted by the courts in the absence of legislation by congress, why shall it not also possess the power to reasonably extend the period when 'the introduction and incorporation into and with the mass of property in the country and state' shall be accomplished?" The answer is plain. In one case congress withholds its power to legislate as to interstate commerce, expressly leaving the state free to act; in the other, congress at-

tempts to control by legislation a field expressly reserved by the United States constitution to the legislature of the state.

Sixth. A statute whose terms are broad enough to include both intrastate and interstate commerce, will be construed as applicable only to intrastate commerce, when it would be unconstitutional if applied to interstate commerce.

Counsel vigorously assails this statute as unconstitutional, because, as it is claimed, it covers both intrastate and interstate commerce. The argument of counsel rests wholly upon the fact that the statute does not expressly exempt interstate commerce, does not expressly exempt the article when sold in the original package by the importer. This contention is nothing new. It has been frequently made before the highest courts of the country and as frequently held immaterial. This court will construe this statute the same as though this exception was incorporated in it. It will be presumed that the legislature intended to pass a valid law, and that in doing so it knew of the relations between the state and national government. It will not be presumed that the legislature intended to fly in the face of the United States Constitution and of the National Pure Food Law, but rather that it intended to act within the scope of its lawful powers. It was legislating for the people of Wisconsin. The aim of the statute was to compel honesty in the sale of a common article of food to the consumers in this state. True, the law is general in its terms, but this is true of nine-tenths of the legislation on our statute books. When a statute is assailed as unconstitutional, there are certain well recognized presumptions to be indulged in by the courts. As well stated by the Wisconsin Supreme Court:

"It must be presumed that the legislature intended to make a valid law. It must be construed in the light of history, the manifest object in view, and all circumstances furnishing any light as to the real legislative intent. No construction should be adopted rendering a law invalid, if, under all the circumstances, a meaning can be read therefrom, reason-

ably, which will render it valid. As is commonly said, the intent of an act, when discovered, if found expressed in any reasonable view of its words, is to be deemed to be as efficiently incorporated therein by implication, as if expressed by words taken in their literal sense. To that end the terms of a law can be given a literal or a strict construction and the literal sense of words can be violated, as may seem calculated to carry out the real purpose of the law-makers."

Chicago & N. W. Ry. Co. v. State, 128 Wis. 553, 650-651.

For an excellent statement of the same doctrine, see,

Church of the Holy Trinity v. United States, 143 U. S. 457, 459.

"Before we exert that highest of judicial prerogatives to declare that the concurrent legislative branch of the government has attempted to act beyond its competency, we must be convinced thereof beyond reasonable doubt, and, if there might within reason be any theory or purpose which would bring the questioned legislation within its power, it is our duty to assume such basis for it."

State v. Anson, 132 Wis. 461, 473.

"A statute should be construed, if possible, so as not to make it an interference with the exclusive power of Congress to regulate interstate commerce. Thus a state statute will be construed, if possible, as affecting merely traffic wholly within the state where it would be in violation of the commerce clause of the Constitution if it were intended to affect interstate traffic. The cases are very numerous wherein state statutes whose terms were broad enough to include both internal and interstate commerce have been held applicable only to internal commerce, and as such sustained because to hold otherwise would render the statute unconstitutional."

17 Am. & Eng. Ency. of Law, Second Ed., 75, 76.

The following are some, among the many cases, supporting the above proposition:

Ratterman v. Western Union Telegraph Co., 127 U. S. 411, 427-428.

McCabe v. Atchison, T. & S. F. Ry. Co., 186 Fed. 966, 972, 973.

Commonwealth v. Gagne, 153 Mass. 205.

Commonwealth v. People's Express Co., 88 N. E. 420, 424. (Mass. 1909.)

Western Union Telegraph Co. v. State, 121 S. W. 194, 196.

Wagner v. Western Union Telegraph Co., 133 S. W. 91.

Greek-American Sponge Co. v. Richardson Drug Co., 124 Wis. 469, 476.

State v. Western Union Telegraph Co., 75 Kas. 620, 90 Pac. 299.

G. C. & S. F. Ry. Co. v. Gray, 87 Tex. 313, 28 S. W. 280.

I. & G. N. R. Co. v. R. R. Commissioners, 99 Tex. 332, 89 S. W. 961.

McCord v. State, 101 Pac. 280, 286.

Standard Oil Co. v. State, 117 Tenn. 618, 10 L. R. A. (N. S.) 1015, 1020; 100 S. W. 705, 709.

Freight Discrimination Cases, 95 N. C. 428, 59 Am. Rep. 247.

Beardsley v. N. Y. L. E. & W. R. Co., 44 N. Y. Supp. 175, 178.

Dillon v. Erie Ry. Co., 43 N. Y. Supp. 320, 326.

Ex Parte Agnew, 89 Neb. 306; 131 N. W. 817, 820.

El Paso M. & Ry. Co. v. Gilmore, 215 U. S. 87, 96.
Commonwealth v. Gagne, above. Here the defendant had been convicted for unlawfully keeping and selling intoxicating liquors, under a statute that was general in its terms and made no exception in favor of liquors imported from other states, although the statute did make an exception in favor of liquors imported from a foreign country. It was contended that the law was unconstitutional as being an interference with interstate commerce. But the court held that such laws, being passed in the exercise of the police power, should, not-

withstanding the generality of the terms in which they may be expressed, be confined in their application to those subjects with which they may lawfully deal. "Indeed," says the court, "where two governments, like those of the United States and the Commonwealth, exercise their authority within the same territory and over the same citizens, the legislation of that which as to certain subjects is subordinate should be construed with reference to the powers and authority of the superior government, and not be deemed as invading them unless such construction is absolutely demanded."

It will be observed that the statute under consideration in the above case did contain an exception as to liquors imported from a foreign country, but contained no exception as to liquors imported from another state, and this fact was urged upon the court as strong evidence that the act was intended to control interstate commerce and therefore void. But the court held that the making of one exception could not be deemed to indicate that other exceptions which exist by reason of the relation of the state to the government of the United States, "are not to be read into and made a part of the statute. It is to have that interpretation which will make it apply in accordance with the relation that exists between the national government and that of the several states in the exercise of their respective powers."

"Whether the failure to specify an exception to the general terms of the statute, so far as liquors imported from other states and sold in the original packages, were concerned, proceeded from accident, or from the fact that it was deemed unnecessary, or from misunderstanding as to the existence of such an exception, need not be inquired; the legislative intent was to enact a statute consistent with its powers under the Constitution of the United States, and it should be construed in this aspect."

It is in this case that the court quotes from *Commonwealth v. Kimball*, 24 Pick. 359, 362, where Chief Justice Shaw, in answer to the same contention that is made here, namely, that

a part of the law was general and unconstitutional as including interstate commerce, said:

"Be it so; what is the consequence? Supposing the law could be construed to be repugnant to the Constitution of the United States, in so far as it prohibited the sale of imported spirits by the importer in the original package, it would be void thus far and no further, and in all other respects conforming to the acknowledged power of the State government, it would be in full force."

The same principle is recognized and applied by the Wisconsin Supreme Court in *Greek-American Sponge Co. v. Richardson Drug Co.*, above, where the court held that section 1770b, containing the regulations as to foreign corporations doing business in this state, and general in its terms, would be held to be void so far as interstate commerce transactions were concerned, but this same section has been sustained again and again by the court as to all internal transactions by such foreign corporations. To the same effect see, *Western Union Telegraph Co. v. State*, above, where the provisions of the statute as to foreign corporations doing business within the state, were, as held by the court, "broad enough to embrace foreign or interstate business" yet as further held, they "should be construed to apply only to domestic or intrastate business, so as not to violate the commerce clause of the Federal Constitution."

"Probably half the articles of the penal code of this state," says the court, "defining offenses are couched in such general terms as to place that, if construed literally and without any restrictions, would include acts committed outside the limits of the state as well as those within; yet it has never been contended, in so far as we know, that such provisions of the code are invalid because they were intended to apply to matters beyond the jurisdiction of the state."

In the case of *G. C. & S. F. Ry. Co. v. Gray*, above, the provision of the state statute required common carriers "to feed

and water live stock during the time of conveyance and until the same is delivered and disposed of as provided in this title." The court held this language broad enough, if literally construed, to include interstate as well as domestic shipments, but in construing it the court held it was intended to apply to intrastate shipments, for the reason that it could not be supposed that the legislature would undertake to prescribe what should be done at a point outside of the state, though the language of the statute was broad enough to authorize that construction.

In the case of *I. G. N. R. Co. v. Railroad Commission*, above, the statute under consideration authorized the railway commission "to correct abuses," and, while the court conceded that the language used was broad enough to include all abuses, it was held that the legislature did not so intend, because to so construe it would render the statute unconstitutional.

As showing how far courts will go in sustaining a state statute that may, in its terms, cover interstate commerce, the case of *Standard Oil Co. v. State*, above, is interesting and instructive. Here the court was called upon to construe the anti-trust statute of the state which made void all agreements between persons or corporations made with a view to the restriction of competition in the "importation or sale of articles imported into" the state, "or in the manufacture or sale of articles of domestic growth or of domestic raw material," etc. Held, that while the above language "importation or sale of articles imported into" the state, when literally construed, would include interstate commerce, yet, to sustain the law, the court held that this language "was intended to include and describe, among the articles of commerce to be protected, *those which had been imported from other states or countries, commingled with the common mass of property in this state, and no longer articles of interstate commerce.*"

In *Beardsley v. Railway Co.*, above, the constitutionality of a statute was brought in question which prohibited every rail-

road corporation operating a railroad within the state with a line of one hundred miles in length, or more, from charging more than two cents per mile. The court construed the law as applying only to internal business, for the reason that it *might* be given that construction, and that the courts "must so construe a statute as to bring it within the constitutional limitations, if it is susceptible of such a construction."

The courts have declared, again and again, in favor of the proposition for which the state here contends. If this act of the legislature under consideration be susceptible of two interpretations, one of which would render it obnoxious to some provision of the United States Constitution, while the other would place it in harmony with that fundamental law, that interpretation must be preferred which will sustain the act, rather than the one which will destroy it.

The *Ratterman case*, above, involved the constitutionality of a statute of Ohio which assessed a single tax upon the receipts of a telegraph company derived partly from interstate commerce and partly from commerce within the state, but which was returned and assessed in gross and without separation or apportionment. This court held the law not wholly invalid, but invalid "only to the proportion and extent that such receipts were derived from interstate commerce," leaving the state the right "to collect the other tax upon property of the company and upon receipts derived from commerce entirely within the limits of the state."

The case of *McCabe v. Atchison, Topeka & S. F. Ry. Co.* involved the constitutionality of a law requiring any railway company doing business in the state of Oklahoma to provide separate coaches for the accommodation of the white and negro races, equal in all points of comfort and convenience. It was conceded that the terms of the law were general and broad enough to include interstate commerce, and that, if so construed, the statute would be void. But the court, at page 972, says:

"Local transportation or that which is wholly within the state only, being within the competency of the state legislature, would naturally be presumed to have been alone contemplated in the law enacted by it. The constitutional inhibition against a state legislating concerning interstate commerce and the uniform decisions of courts of high and controlling authority emphasizing and enforcing that inhibition, without doubt, were actually as well as constructively known to the members of the legislature of Oklahoma. It is unreasonable to suppose they intended to legislate upon a subject known to them to be beyond their power and upon which an attempt to legislate might imperil the validity of provisions well within their power. Any other view would imply insubordination and recklessness which cannot be imputed to a sovereign state. This conclusion is supported by abundant authority."

Furthermore, the principle that one part of a statute may stand while another may fall, unless the two are so connected or dependent on each other in subject-matter, meaning or purpose that the good cannot remain without the bad, is equally applicable here. The principles which control in such cases are well stated by Chief Justice Shaw in *Warren v. Mayor of Charleston*, 2 Gray, 84, quoted approvingly in *Allen v. Louisiana*, 103 U. S. 80, 84.

"But if they (the different provisions) are so mutually connected with and dependent on each other, as conditions, considerations or compensations for each other, as to warrant a belief that the legislature intended them as a whole, and that, if all could not be carried into effect, the legislature would not pass the residue independently, and some parts are unconstitutional, all the provisions which are thus dependent, conditional or connected, must fall with them."

The other statement of the rule, also often quoted with approval, is as follows:

"As one section of a statute may be repugnant to the constitution without rendering the whole act void, so, one provision of a section may be invalid by reason of its not conforming to the constitution, while all the other provisions

may be subject to no constitutional infirmity. One part may stand while another will fall, unless the two are so connected or dependent on each other in subject-matter, meaning or purpose, that the good cannot remain without the bad. The point is, not whether the parts are contained in the same section, for, the distribution into sections is purely artificial; but whether they are essentially and inseparably connected in substance—whether the provisions are so interdependent that one cannot operate without the other.”

Loeb v. Township Trustees, 179 U. S. 472, 490.

Berea College v. Kentucky, 211 U. S. 45, 55.

Many of the other cases cited above, under this subdivision of the argument, applied this principle and sustained the valid portion of the law applicable to intrastate commerce, although the same statute or section contained another portion that was void because applicable to interstate commerce.

Commonwealth v. Kimball, 24 Pick. 359, 362.

Commonwealth v. Gagne, 153 Mass. 205, 207-208.

Ratterman v. Western Union Telegraph Co., 127 U. S. 411, 427-428.

Dillon v. Erie Ry. Co., 43 N. Y. Supp. 320, 326.

Greek-American Sponge Co. v. Richardson Drug Co., 124 Wis. 469, 476.

Under the principles here announced—and they have frequently been applied by this court—there should be no difficulty in sustaining this act, even though the language is broad enough to include both interstate and intrastate commerce. It can not be said that the idea of controlling interstate commerce was even present to the mind of the legislature, much less that it was the controlling inducement to the passage of the act for the purpose of controlling commerce within the state. To say that the legislature would not have legislated to control the labeling and branding of this article after it had ceased to be the subject of interstate commerce, unless it could also control the labeling and branding of it as an article of inter-

state commerce, is contrary to all of the evidence in the case and to all presumptions that should be indulged in by the court in such cases. The following additional authorities all support the contention of the plaintiff:

Berea College v. Kentucky, 211 U. S. 45.

Presser v. Illinois, 116 U. S. 252, 263.

Supervisors of Albany County v. Stanley, 105 U. S. 305.

Field v. Clark, 143 U. S. 649, 695-696.

Huntington v. Worthen, 120 U. S. 97, 102.

Scott v. Donald, 165 U. S. 58, 105.

State v. Sawyer County Board of Supervisors, 140 Wis. 634.

Quiggle v. Herman, 131 Wis. 379, 382.

State ex rel. Cornish v. Tuttle, 53 Wis. 45.

Lynch v. Steamer "Economy", 27 Wis. 69, 72.

State ex rel. Walsh v. Dousman, 28 Wis. 541.

Kennedy v. Railway Co., 22 Wis. 581, 590.

Wakely v. Mohr, 15 Wis. 609, 611.

Slauson v. Racine, 13 Wis. 398, 404.

Fayette County v. People's & Grover's Bank, 10 L. R. A. 196, 201.

In *State v. Sawyer County Board of Supervisors*, the constitutionality of a law was brought in question which left to the county boards of the different counties the discretion as to whether, under a certain law, they would create more than one "special municipal court" in any one county. That portion which gave the discretion to establish more than one such court was held void, but the act was sustained so far as authorizing the establishment of one court in each county. As stated by the court:

"No substantial reason occurs to us why the valid portion of this law should not be upheld. The legislature had the laudable purpose in mind of passing one general act applicable to the entire state in lieu of enacting a multitude of special acts limited in their application to a single county.

The valid portion of the law will no doubt fulfill the requirements of most of the counties of the state, and it is not apparent how the void portion was any condition or compensation for the passage of the valid part."

Quiggle v. Herman, above. The Wisconsin statute, section 1675-1a, provided that all notes given for the sale of "any lightning rod, patent, patent right, stallion or interest therein," should have written or printed on them in red ink "that the consideration was for the sale of a lightning rod patent, patent right, stallion or interest therein." The court had held in the case of *J. H. Clark Co. v. Rice*, 127 Wis. 451, that this statute was void as to patent rights, but in the *Quiggle* case the court sustains the law as to "lightning rods" and "stallions," on the ground that the two parts of the statute, the void and the valid, were "distinct and separate," and "not dependent upon each other." "It is only," says the court, "where the void part of a statute was evidently designed as compensation for or an inducement to the otherwise valid portion, so that it must be presumed that the legislature would not have passed one portion without the other, that the whole must be held void."

Berea College v. Commonwealth of Kentucky, above. This case involved the constitutionality of an act of the Kentucky Legislature entitled, "An Act to prohibit white and colored persons from attending the same school." The first section of the act made it "unlawful for any person, corporation or association of persons to maintain or operate any college, school or institution where persons of the white and negro races are both received as pupils for instruction" under a penalty of one thousand dollars. Succeeding sections of the act made it illegal for any instructor to teach in any such mixed school, and unlawful for any white person to attend such a school. Berea College, a corporation, was indicted for violating the statute, and convicted. It was conceded that the statute, so far as it attempted to control persons or individuals, was unconstitutional, but this court sustained the statute so far as it dealt

with the corporation, on the principle here contended for, that the two purposes of the act could be separated and that the void purpose could not be considered as the inducement or condition for the valid purpose. See especially statement made on behalf of Berea College by its counsel, John G. Carlisle, at page 47.

The cases cited and relied upon by counsel for defendants, pp. 16-17 of the brief, are inapplicable to the facts of this case. Take, for example, *Connolly v. Union Sewer Pipe Co.*, 184 U. S. 540, 565. Here a statute which in one section, forbade *all* combinations, in another section exempted agriculturists and live stock dealers. This exemption being void, the court held the act void, for to hold otherwise, the act would cover the two classes which the legislature expressly intended should not be covered.

In *Gilbert-Arnold Land Co. v. City of Superior*, 91 Wis. 353, 357, the void portion of the ordinance of the city was the sole cause or reason for the enactment of the ordinance. Hence, the court held the whole ordinance was void. In *Huber v. Martin*, 127 Wis. 412, 444, the court held that in case of a scheme of legislation for a particular purpose, created by the enactment of a law specially referring to the subject, and to other laws required for a complete plan, if the special enactment is the inducing provision and is unconstitutional, the whole is inefficient.

In *State v. Railway Co.*, 136 Wis. 407, a state statute sought to control the hours a telegraph operator should work continuously, whether in interstate or intrastate commerce, in violation of a United States statute covering the same subject, and the court held that it could not sustain the act as to business wholly within the state, because it was not clear that the generality of the restriction was not the essential element of the entire legislative scheme and because the impracticability of limiting hours devoted to domestic service alone was so obvious as to preclude belief in any such legislative intent.

The learned counsel in his discussion fails to note the distinction between the construction of a United States statute by the United States courts, and the construction of a state statute by the state court, and then later by this court. The general rule that controls the courts in the latter class of cases may be stated as follows:

"The rule of construction universally adopted is that, when a statute may constitutionally operate upon certain persons, or in certain cases, and was not evidently intended to conflict with the constitution, it is not to be held unconstitutional merely because there may be persons to whom, or cases in which, it cannot constitutionally apply; but it is to be deemed constitutional, and to be construed not to apply to the latter persons or cases, on the ground that courts are bound to presume that the legislature did not intend to violate the constitution."

State v. Smiley, 67 L. R. A. 903, 908.

The Kansas court, in the above case, after stating the above rule, calls attention to certain cases—the class of cases relied upon by counsel for defendants—and as to these cases says: "All of these cases raise questions as to the validity of legislation enacted under the special and limited powers of congress." The distinction between a construction of a state statute adopted by a legislature having power to legislate on all subjects, and the construction of a United States statute where the power of congress is specially limited, is well stated at page 909 of this opinion.

In cases going to this court, involving the construction of state statutes, this court has uniformly announced the rule here contended for. This is well illustrated in the case of *Waters-Pierce Oil Co. v. Texas*, 177 U. S. 28, 42. This case is precisely in point. It involved a statute general in its terms which, it was contended, as here, was in violation of interstate commerce, but this court, at page 42, after referring to the cases cited by counsel in support of such contention, adds:

"They do not sustain the contention. The interpretation of certain statutes of the United States was involved, and

the court finding the meaning of the statutes plain, decided that it could not be changed by construction even to save the statutes from unconstitutionality. This was but an exercise of judicial interpretation.

"The courts of Texas have like power of interpretation of the statutes of Texas. What they say the statutes of that State mean we must accept them to mean whether it is declared by limiting the objects of their general language or by separating their provisions into valid and invalid parts."

The following, among other authorities, support the above proposition:

Louisville, etc. Ry. Co. v. Miss., 133 U. S. 587, 591.

St. Louis, Iron Mountain, etc. Ry. v. Paul, 173 U. S. 404.

Tullis v. Lake Erie & Western Ry., 175 U. S. 348.

Chesapeake & Ohio Ry. Co. v. Ky., 179 U. S. 388, 395.

Buffalo Refrigerator Mach. Co. v. Penn., H. & P. Co., 178 Fed. 696.

Spinello v. N. Y., N. H. & H. R. Co., 183 Fed. 762.

Seventh. Under the foregoing decisions, the contention that the state law and the United States pure food statute are in irreconcilable conflict cannot be sustained. There is no conflict whatever between the two statutes. Indeed, this is established as a fact by the undisputed testimony in the case. The Department at Washington has ruled that this article can be branded or labeled as required by the Wisconsin statute and sold legally in Wisconsin as well as in other states without violating the national pure food law or any regulation of the Department made under it. Trans. 96.

But aside from the evidence in the case, it is plain that the two laws are in no sense in conflict. The two laws cover wholly separate and distinct fields. The national law deals with the article under the interstate commerce clause of the constitution. It does not seek to go farther. If it should be construed to go farther, it would be an unconstitutional act. Congress cannot, under the guise of the interstate commerce clause of the constitution, control the internal affairs of a state. The law

does not seek to do so, and this court will not give the law any such construction.

The state law assumes jurisdiction over the article only after the United States law has ceased to operate. Beyond this point it is no concern of the United States what the individual states may do in the enactment of laws for the regulation of the sale, within their borders, of food products. This question has been expressly passed upon, favorably to the contention here made, by the Michigan court.

Armour & Co. v. Bird, 159 Mich. 1 (Dec., 1909).

In this case the complainant, Armour & Company, shipped into Michigan, in the original package, sausage composed of meat, spices, and a certain percentage of "cereal." The sausage, as shipped into the state in packages or boxes, was labeled with the trade name of the sausage and the words "with cereal." It was conceded, as stated in the opinion of the court, that the sausage was "made in accordance with the act of Congress and directions prescribed thereunder by the Commissioner of Agriculture, and under the inspection of the United States Inspectors," and that the article as shipped into the state was "a wholesome article of interstate commerce in strict accord with the law and regulations of the Federal Government." The Michigan pure food statute contained a provision as to all food compounds or mixtures that each ingredient should be indicated on every package sold or offered for sale. In this respect the Michigan law was the same as the United States pure food law, so far as the original package was concerned. The Department of Agriculture had, under date of Sept. 12, 1906, made a special regulation as to the labeling or branding of sausage, which regulation contained, among other provisions, this: "If any flour or other cereal is used the label must so state." To this regulation the Department added, "manufacturers are warned that the above rulings *do not exempt them from the enforcement of the state laws.*" It was

conceded that had the article been sold in Michigan by the retailer to the consumer *in the original package*, the state law would have been complied with. But when the original package was broken, and a part of it sold to the consumer, the article sold *did not go to the consumer branded or labeled as the state law required*. The court held that such a sale would be in violation of the state law; that though the state law could not interfere with interstate traffic, the "law here involved does not attempt to interfere with it, or to deny to the complainant the right to sell and ship its goods to retail dealers in this state." The court held that the law merely regulated domestic sales; that it was a proper exercise of the police power of the state upon internal business; that it was enacted for the benefit of the *consumer* as to transactions between him and the retail merchant, and that the consumer had a right to know, when he bought meat sausage, whether it contained meat alone or meat mixed with a cereal.

Both the trial and the supreme courts of Wisconsin construed the law in question as in no way in conflict with the act of Congress; that it only covered sales made after the article had passed out of the channels of interstate commerce.

Eighth. Whether the act in question applies to interstate commerce or not, is not of much importance under the conceded facts of this case, since the defendants are in no position to raise that question; because the transactions involved were wholly of an intrastate character. It is only persons engaged in interstate commerce who can raise the constitutional question that a state statute violates the commerce clause of the United States Constitution.

Supervisors of Albany Co. v. Stanley, 105 U. S. 305.

Hatch v. Reardon, 204 U. S. 152, 160.

Lee v. New Jersey, 207 U. S. 67, 70.

Spain v. St. Louis & S. F. R. Co., 151 Fed. 522, 530.

Williams v. Walsh, 222 U. S. 415, 423.

State v. Sbragia, 138 Wis. 579, 582.

State ex rel. v. Sparling, 129 Wis. 164, 171.

Strange v. Oconto Land Co., 136 Wis. 516, 524-525.

Appleton Water Works v. Appleton, 116 Wis. 363, 373.

In re O'Brien, 75 Pac. 196, 198.

Farrell v. A. C. L. R. Co., 64 S. E. 226 (1909).

McCutchen v. Atlantic C. L. R. Co., 61 S. E. 1108.

State v. Paige, 78 Vt. 28; 62 Atl. 1017.

State v. Cain, 78 S. C. 348; 58 S. E. 937.

Thompson v. Mitchell, 133 Ia. 527; 110 N. W. 901, 903.

Cooley Const. Lim. (6th Ed.) 196.

6 Am. & Eng. Ency. of Law (2nd Ed.), 1084.

State v. Sbragia, above. Here a statute made it an offense for any person by himself or agent, to directly or indirectly "sell, offer for sale, keep for sale, give away, or otherwise dispose of or bring into this state for the purpose of selling, offering for sale, etc.," "any * * * cigarette paper, or cigarette wrappers," etc. The defendant, a retail dealer, purchased from a wholesale dealer in Milwaukee, a sealed package of smoking tobacco shipped to the wholesale dealer from New York, in which was found, upon the package being opened, a coupon entitling the purchaser of the package, upon the receipt of two other such coupons, to have transmitted to him, by the manufacturer in the east, a certain amount of "cigarette paper." The Attorney General joined with the attorneys for the defendant in the argument that defendant's conviction could not be sustained because the law was void as interfering with interstate commerce. But the court declined to consider any such moot question, saying:

"The stipulated facts, as we view them, do not raise any question of interstate commerce and, therefore, the able arguments of counsel on both sides that they do, and that the proper solution thereof is material to the prosecution, we omit to consider."

In *Farrell v. A. C. L. R. Co.*, above, the action was against a carrier for penalty provided by a state statute for delay in transportation, and the defense was that the statute, being general in its terms, violated the commerce clause of the constitution. In answer to this defense, the court said: "Whether it violates the interstate commerce clause of the Federal Constitution does not properly arise, as the shipment in question was not interstate."

In *Supervisors v. Stanley*, above, it was contended that a statute of New York, under which bank stock was assessed, was void because it did not permit the shareholder to make deduction of the amount of his debts from the valuation of the shares of the stock owned by him, in ascertaining the amount for which the shares should be taxed. But it did not appear affirmatively that the party complaining owed any debts, hence this court held that such party could not invoke the defense that the law was invalid as to him, in these words:

"What is there to render it void as to a shareholder in a national bank, who owes no debts which he can deduct from the assessed value of his shares? The denial of this right does not affect him. He pays the same amount of tax that he would if the law gave him the right of deduction. He would be in no better condition if the law expressly authorized him to make the deduction. What legal interest has he in a question that only affects others? Why should he invoke the protection of the act of Congress in a case where he has no rights to protect? Are courts to sit and decide abstract questions of law in which the parties before the court show no interest, and which, if decided either way, affects no right of theirs?"

In *Williams v. Walsh*, above, the statute of Kansas was attacked as in conflict with the interstate commerce clause of the United States Constitution, but this court held (p. 423) that "a law can not be declared invalid at the instance of one not affected by it, and, as we have seen, there was no proof before the justice of the peace that plaintiff in error was an importer of powder." Or, as stated by this court in *Supervisors v. Stan-*

ley, above: "It is very difficult to conceive why the Act of the Legislature should be held void any further than when it affects some right conferred by the Act of Congress. If no such right exists, the delicate duty of declaring by this court that an Act of state legislation is void, is an assumption uncalled for by the merits of the case, and unnecessary to the assertion of the rights of any party to the suit."

Counsel, at pp. 32-33 of the brief, concedes that if the state statute in question is valid so far as it controls intrastate traffic, and the sales of the articles in question were made after they became incorporated in the general property of the state, then the defendants in these cases have no standing in this court. Hence, he is driven to the contention that "the entire statute is void." The authorities cited at p. 33 of the brief, do not at all support this contention.

Ninth. Whether the statute in question shall be construed to be applicable to intrastate commerce solely, or not, is purely a question for the state court, and upon the proper construction to be given, the state courts are not restricted by federal decisions. In such cases the federal courts adopt the construction given by the state courts.

Osborne v. Florida, 164 U. S. 650, 654.

Louisville, etc. Ry. Co. v. Miss., 133 U. S. 587, 591.

St. Louis, Iron Mountain, etc. Ry. v. Paul, 173 U. S. 404.

Tullis v. Lake Erie & Western Ry., 175 U. S. 348.

Chesapeake & Ohio Ry. Co. v. Ky., 179 U. S. 388, 395.

Buffalo Refrigerating Mach. Co. v. Penn. H. & P. Co.,
178 Fed. 696.

Spinello v. N. Y., N. H. & H. R. Co., 183 Fed. 762.

Chicago etc Ry. Co. vs. Minnesota 134 U. S. 418
San Diego Land Co. vs. National City 174 U. S.

III.

The Wisconsin statute in no way violates the Fourteenth Amendment of the United States Constitution.

The act in question falls clearly within the police power of the state, and as such should be sustained. It is only when the bounds of reason have been so clearly exceeded as to violate some constitutional prohibition, express or implied, that the court has any power to interfere with the exercise of this legislative power.

State v. Redmon, 134 Wis. 89.

When the state acts within these bounds, the state does not deprive any citizen of liberty or property without due process of law.

In re Rahrer, 140 U. S. 545.

Austin v. Tennessee, 179 U. S. 343.

The sole object of this statute is to compel simple honesty in the manufacture and sale of a food product. It merely requires the manufacturer to label the article according to its constituent elements. It says to the manufacturer that an article made up of seventy-five per cent or more of commercial glucose and twenty-five per cent or less of any true syrup, shall be so marked or branded. In the cases before the court, one can contained eighty-five per cent and the other ninety per cent of commercial glucose, the remaining constituent being refiners' syrup, a cheap and inferior syrup used as mixing syrup because of its color and high flavoring quality. The compound is cheap as compared with any true syrup, and as sold in these cans is less than one-half the sweetness of any true syrup.

It is this kind of an article which the defendants contend they have the constitutional right to palm off upon the consumer as a true syrup, and the main argument advanced in support of this contention is that if compelled to sell this article, branded or labeled according to its true constituents, people would not as readily buy it, because of an alleged prejudice they have against glucose. But this is just the reason why, as the State contends, that the article should be labeled for just what it is, the purchaser being entitled to know what he gets, and the trial court so found.

"When the defendants established the fact that the public generally would not purchase the product if it were put out under the name of glucose (which is shown to be a proper designation) they brought the case within the realm where the state, exercising the police power, has the right to determine that it shall no longer be sold under a name which misleads the public." Trans. 27.

This is the spirit and purpose of the pure food law. The United States Food and Drug Act, Section 8, declares that the article is misbranded "If it be in imitation of or offered for sale under the name of another article," or "If it be labeled or branded so as to deceive or mislead the purchaser," or "If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device shall be false or misleading in any particular;" and the Wisconsin statute, sec. 4601-1a, prohibits the sale of any molasses or glucose, "unless the same be true to the name under which it is sold and as defined in the standards for food products as latest promulgated by the United States Secretary of Agriculture," and unless "the same be distinctly branded or labeled with the name of its contents as specified in the above standards."

And in case the article sold be a mixture of molasses or syrup with glucose, the statute prohibits its sale unless the keg, can or pail "containing the same be distinctly branded or

labeled so as to plainly show the true name of each and all of the ingredients composing such mixture."

As to the wholesomeness or unwholesomeness of this article, while some investigators claim the product itself is unwholesome, the great majority are of the opinion that it is wholesome. There have, however, been cases of wholesale poisoning from the use of glucose in the manufacture of food products, due to impurities that were present in the mineral acid. Some years ago, in Manchester, England, there was a case of wholesale arsenical poisoning which was traced to beer, and it was found that glucose had been used in the manufacture of the beer, and that the acid which was used in the conversion of starch into glucose contained arsenic. Trans. 46. This is a danger that may recur at any time, due to carelessness, because arsenic is frequently present in commercial acids, and unless acids are always tested for arsenic or other poisonous impurities, these impurities might get into the product.

This would not be true of the manufacture of beet sugar, because in such manufacture the refuse is all thrown away. It might be true in the manufacture of cane sugar, in the case of molasses. It is not, however, apt to contain arsenic. If the molasses manufactured from the cane contains any poisonous ingredients, *they are added poisonous ingredients*. That is, sugar and molasses and refiners' syrup can be manufactured without the addition of any extraneous substances. They can be manufactured by the evaporation of the mere vegetable product, the juice of the plant, while in the case of the manufacture of glucose it is necessary to add an acid to the natural vegetable product, starch; and if this acid contains impurities they will be found in the final product. It is the contention on the part of the State, that the consumer, who eats the product, is entitled to know what this product is so as to make an intelligent decision as to whether he will buy it and eat it, or whether he will buy some other product; that he is entitled to know whether he is getting a product that is manufactured

from starch or from the sap of a sugar producing plant. Trans. 45-46, 65.

But aside from the question of the wholesomeness or unwholesomeness of the article, the legislation in Wisconsin is a proper exercise of the police power. This extends to the prevention of deception and fraud in the sale of food products as well as to the securing of wholesomeness in such products. The Wisconsin Supreme Court has, in a number of cases, laid down the rule that the legislature, in the exercise of its police power, may legislate as to all matters appertaining to the lives, limbs, health, comfort, good morals, peace and safety of society.

Baker v. State, 54 Wis. 368, 372.

State ex rel. Larkin v. Ryan, 70 Wis. 676, 681.

State v. Heinemann, 80 Wis. 253.

Bittenhaus v. Johnston, 92 Wis. 588.

State ex rel. Kellogg v. Currens, 111 Wis. 431.

State v. Redmon, 134 Wis. 89.

State v. Cary, 126 Wis. 135.

"The police power of the state is not limited to regulations necessary for the preservation of good order or the public health and safety. The prevention of fraud and deceit, cheating, and imposition are equally within the power."

People v. Freeman, 242 Ill. 373; 90 N. E. 366, 368. (Ill. December, 1909).

People v. Wagner, 86 Mich. 594; 49 N. W. 609, 611.

It is to be remembered that the legislation complained of does not attempt to *prohibit the sale* of an article of food so universally considered to be wholesome that the courts of justice would take judicial notice of that fact. Until legislation of the state reaches such a point, the court will sustain it.

As stated by the lower court: "The provisions of this statute in no way prohibit the sale of the articles embraced within the regulation. Its object is to regulate traffic therein so as to pro-

tect the people against imposition and false pretenses." Trans. 483.

"If the regulation provided by the state tends to correct an actual evil in the traffic, by which purchasers of an article of food are being deceived into buying something which it in fact is not, then the state acted within its appropriate field, under the police power, and the law cannot be said to be invalid for want of power in the state to deal with the subject." Trans. 485.

(1) *Principle for which the State contends illustrated in oleomargarine decisions.*

The history of the oleomargarine legislation in this country furnishes an excellent example as to how far the legislature may go, not only in regulating, but even prohibiting, the manufacture and sale of an article of food that may be calculated to deceive the consumer, even though the article be wholesome. The courts have held, without exception, that it is within the police powers of the legislature to require that oleomargarine offered for sale should be so labeled as to inform the purchaser of the character of the article he was purchasing, although it was generally conceded that oleomargarine is a wholesome article of food and that the coloring of the same so as to make it resemble the color of butter does not in any way interfere with its wholesomeness. But such an article, so manufactured, tends to deceive the public, and it is for this reason that all of the courts hold it proper for the legislature to regulate the sale of the article by requiring it to be free from coloring matter that shall cause it to look like butter, and also by requiring that it should be particularly marked or branded.

Powell v. Pennsylvania, 127 U. S. 678.

Plumley v. Massachusetts, 155 U. S. 461.

Schollenberger v. Pennsylvania, 171 U. S. 1.

Collins v. New Hampshire, 171 U. S. 30.

State v. Marshall, 64 N. H. 549; 15 At. 210.

People v. Arensburg, 105 N. Y. 123, 129, 130.

State v. Addington, 77 Mo. 110, 118.

Butler v. Chambers, 36 Minn. 69.

Weideman v. State, 55 Minn. 183; 56 N. W. 688.

State v. Newton, 50 N. J. L. 534; 14 At. 604.

State v. Capital City Dairy Co., 62 Ohio St. 350; 57 N. E. 62.

Capital City Dairy Co. v. Ohio, 183 U. S. 238.

Commonwealth v. Caulfield, 211 Pa. St. 644; 61 At. 243.

Commonwealth v. McDermott, 224 Pa. 362; 73 At. 427 (April, 1909).

People v. Freeman, 242 Ill. 373; 90 N. E. 267 (Dec., 1909).

In *Powell v. Pennsylvania*, above, this court sustained a statute of Pennsylvania absolutely prohibiting within the state the manufacture or sale of oleomargarine. This case has never been reversed or overruled, so far as intrastate business is concerned. At page 686 the court, answering the contention of counsel, says:

"If all that can be said of this legislation is that it is unwise, or unnecessarily oppressive to those manufacturing or selling wholesome oleomargarine, as an article of food, their appeal must be to the legislature, or to the ballot box, not to the judiciary. The latter cannot interfere without usurping powers committed to another department of the government."

In *People v. Arensburg*, above, the court, on p. 129, in sustaining the oleomargarine law, uses language often quoted and very applicable to the facts of this case:

"Assuming, as is claimed, that butter made from animal fat or oil is as wholesome, nutritious and suitable for food as dairy butter; that it is composed of the same elements and is substantially the same article, except as regards its origin, and that it is cheaper, and that it would be a violation of the constitutional rights and liberties of the people to prohibit them from manufacturing or dealing in it, for the mere purpose of protecting the producers of dairy butter against com-

petition, yet it cannot be claimed that the producers of butter, made from animal fat, or oils, have any constitutional right to resort to devices for the purpose of making their product resemble in appearance the more expensive article known as dairy butter, or that it is beyond the power of the legislature to enact such laws as they may deem necessary, to prevent the simulated article being put upon the market in such a form and manner as to be calculated to deceive. If it possesses the merits which are claimed for it, and is innocuous, those making and dealing in it should be protected in the enjoyment of liberty in those respects, but they may legally be required to sell it for and as what it actually is, and upon its own merits, and are not entitled to the benefit of any additional market value which may be imparted to it by resorting to artificial means to make it resemble dairy butter in appearance. It may be butter, but it is not butter made from cream, and the difference in cost or market-value, if no other, would make it a fraud to pass off one article for the other."

And so we say in the present case, the article sold may be loosely termed a syrup, but it is not a true syrup and the "difference in cost or market-value, if no other, would make it a fraud to pass off one article for the other."

(2) *The principle for which the State contends, illustrated by the legislation as to other food products.*

Such legislation as is here attacked by the learned counsel is nothing new. It exists in all of the states and has been uniformly sustained, not only as to regulations for the sale of oleomargarine, but as to almost every variety of food. So uniformly have these laws been sustained, now for many years, that the courts have become wearied in being further called upon to consider their constitutionality. As stated in two recent decisions of the supreme court of Pennsylvania:

"There is no reason why we should stuff the reports with a repetition of these decisions."

Commonwealth v. Caulfield, 211 Pa. St. 644; 61 At. 243.

Commonwealth v. McDermott, 224 Pa. 362; 73 At. 427

(No. 1) (1909).

The following cases all support the contention of the State as to the constitutionality of the law under discussion as a proper exercise of the police power of the state, all of these decisions dealing with the manufacture and sale of food products other than oleomargarine:

Crossman v. Lurman, 171 N. Y. 329.

Crossman v. Lurman, 192 U. S. 189.

State v. Aslesen, 50 Minn. 5; 52 N. W. 220.

State v. Hanson, 86 N. W. 768.

Iowa v. Snow, 11 L. R. A. 355; 81 Iowa, 642.

Stolz v. Thompson, 44 Minn. 271; 46 N. W. 410.

State v. Sherod, 80 Minn. 446; 83 N. W. 417.

State v. Layton, 160 Mo. 474; 61 S. W. 171; 83 Am. St. Rep. 487 (1901).

Palmer v. State, 39 Ohio St. 236; 48 Am. Rep. 429.

City of Chicago v. Bowman Dairy Co., 234 Ill. 294; 84 N. E. 913 (1908).

People v. Wagner, 86 Mich. 594; 49 N. W. 609.

State v. Crescent Cream Co., 83 Minn. 284; 86 N. W. 107 (1901).

State v. Tetu, 98 Minn. 351; 107 N. W. 953 (Minn. 1906).

Hathaway v. McDonald, 27 Wash. 659; 68 Pac. 376 (1902).

People v. Niagara Fruit Co., 77 N. Y. Supp. 805, affirmed in 173 N. Y. 629.

People v. Girard, 145 N. Y. 105 (1895).

People v. Worden Grocer Co., 118 Mich. 604; 77 N. W. 315 (1898).

Board of Health v. Vandruens, 72 At. 125 (N. J. 1909).

Commonwealth v. Evans, 132 Mass. 11.

People v. Cipperly, 37 Hun. 324, dissenting opinion affirmed in 101 N. Y. 634.

People v. West, 106 N. Y. 293.

State v. Campbell, 64 N. H. 402; 13 At. 585.

State v. Smythe, 14 R. I. 100.

Arbuckle v. Blackburn, 113 Fed. 616 (1902).

Armour & Co. v. Bird, 159 Mich. 1; 123 N. W. 580.

State v. Aslesen, above. The defendant here was convicted of selling a "lard substitute" called "cottolene," consisting of a mixture of beef sterine and refined cotton seed oil, without affixing to the package containing the same a label with the words "lard substitute" together with "the names and appropriate proportions contained in the mixture or compound."

Upon the trial the defendants offered to prove that "cottolene was a wholesome, palatable and nutritious article of food; also that it does not resemble lard in appearance, and has never been sold as lard." The supreme court sustained the ruling of the lower court excluding this evidence on the ground that the act did not deal merely with "simulated articles," but applied "as well to any substance made 'as a substitute for lard, and which is designed to take the place of lard.'" The court further held that the act was not limited "in its application to substances that are unwholesome. It applies alike to all 'lard substitutes,' consisting of the different mixtures or compounds, regardless of their appearance or actual hygienic qualities." Hence the only question was whether the act as thus construed was a legitimate exercise of the police power of the state. The court, in an able opinion by Mitchell, J., sustaining the law, after calling attention to the well known fact that there was a popular prejudice against certain ingredients as an article of food, whether well founded or not, said:

"the legislature has seen fit to require the seller of these lard substitutes to label the article which he sells with what, for convenience, we may call a quantitative analysis of its ingredients, and to require the seller of any article of food prepared with such lard substitute to give notice of the fact to the purchaser, so that he may know just what he is buying. This certainly does not deprive the seller of his property without due process of law. No man has a constitutional right to keep secret the composition of substances which he sells to the public as articles of food. Such regulations * * *

do not impair any fundamental rights of life, liberty or property. . . . If the legislation is unwise or inexpedient, the only appeal is to 'the ultimate tribunal of the public judgment, exercised either in the pressure of public opinion or by means of the suffrage.'"

It is seen from the above that there was no element of fraud involved in this case, in the sense that the article in question was made in resemblance of or in imitation of, as to appearance, true lard, but notwithstanding this fact, the court held that it was a proper exercise of the police power to compel the manufacturer and seller to place upon the article sold a "quantitative analysis," so that the consumer might see the ingredients and thereby be enabled to judge whether he wanted to eat the article or not. It was conceded that the article was perfectly wholesome. The case is much weaker in its facts than the case at bar, for here the article is of the *color* of a true syrup, and is calculated thereby to deceive the consumer.

We are not informed whether, subsequent to the above decision, those selling cottolene "appealed to the ultimate tribunal of the public judgment," for a change of the law. But we do know that in Wisconsin, subsequent to the decision herein of the trial court, the legislature most emphatically placed its stamp of approval upon that decision.

We submit that the learned counsel's attempt to distinguish this and the following case from the one at bar, at pp. 48-49 of the brief, is not successful. Nor was such an attempt successful before the trial court. That court, in reliance upon such cases as *State v. Aslesen*, makes the following excellent statement of the rule of law applicable.

"The question is not whether the term 'corn syrup' is coming into general use, the question is whether this name deceives the public and leads it to buy that which it would not otherwise purchase. Whether the product be wholesome or unwholesome, whether the consumer have valid reasons or only unreasoning prejudices in regard to the matter, the public has a right to know, and the state the right to compel

the disclosure of, what is contained in all food products offered to the consumer." Trans. 27.

Stolz v. Thompson, above. Here a law was attacked as unconstitutional because it required any person selling baking powder containing alum to label it "this baking powder contains alum." The learned counsel for the defendants, in his attempt to distinguish this case, says it was a case of adulteration. No such question, however, was in the case. The court expressly states:

"We need not enter upon a consideration of the question as to whether the use of alum in food in such quantities as might be included in a baking powder is or is not injurious to health. The validity of that part of the law which we are considering does not depend upon its being injurious."

And the court further held that it was wholly immaterial whether the enactment was induced by a belief on the part of the legislature that the use of alum in baking powder was injurious, and also holding immaterial whether a large portion of the people believed it to be so. In either case, the court held, the law requiring the branding was constitutional, and did not deprive the owner of his property, nor deny to him the equal protection of the law.

State v. Sherod, above. This case involved the constitutionality of a law that required all mixtures or compounds intended for use as a baking powder to be labeled so as to show all the ingredients of the compound. The defendants contended that if the baking powders sold by them were pure cream of tartar powders, there was no reason for requiring their ingredients to be published "and it is an unwarranted interference with the manufacturer's or dealer's business to put him to that expense and annoyance. They further contended that the public would receive no benefit from such labels for the reasons that the purchasers of the powder did not know the meaning of the terms used, and that it was unjust to cause the manufacturer and dealer in pure powders to submit to

such a law for the purpose of exposing those who make or deal in a harmful article; that if such a law can be enforced against baking powders, without reference to their purity, then pure sugar, pure flour, and other staple articles of food may be likewise brought under similar restrictions, and to single out baking powder in this manner was class legislation and void. "There is nothing new," says the court, "in all these objections. The field has been fully covered by the previous decisions of this court."

This decision, as well as that of *Stolz v. Thompson*, rests upon the broad ground, as stated by the court, that baking powders are a *compound*, the contents of which the people have a right to know before purchasing, and the question of the wholesomenes of the article is immaterial. Such laws merely require the manufacturer to deal honestly with the public, and to use the court's language "those who have so dealt and built up great reputations upon the excellency of their goods, should not complain at being obliged to take the public still further into their confidence by openly making known the contents of the article."

In the cases before the court, we are also dealing with a compound, and what constitutional right, we ask, has been infringed by requiring the manufacturer, in the interest of simple honesty, to state the ingredients of the compound? It is conceded by the defense that until Feb. 13, 1908, the article that makes up ninety per cent of one of the cans sold, was never known in this country under any other name than "glucose." The other ten per cent was refiners' syrup. Counsel will not contend that these are not the proper names for these ingredients before they are mixed, but does merely mixing them change their real character, and is the public to be denied the right of knowing the true ingredients of the compound, because, as contended, the public would not so freely buy it, if they knew the ingredients, because of the alleged prejudice against glucose? But this is just the reason why the public

should be notified as found by the trial and supreme courts of the state.

State v. Layton, above. This case involved the constitutionality of a statute absolutely prohibiting the manufacture and sale of baking powders containing alum within the state of Missouri. Upon the trial the defendant offered to prove that there were three classes of baking powders known to commerce, and that there was no essential difference between them excepting in the method of liberating or freeing the dioxide of carbon, which is the leavening agent of bicarbonate of soda; that none of the products left in the food cooked with alum baking powders were injurious, that alum baking powders had given entire satisfaction to the people, that they were as standard an article as flour or sugar, that the sale of these powders amounted, in a previous year in the United States, to not less than 120,000,000 pounds, that they had always been healthy and wholesome, that no one had either heard or known of a single case where the health of a single human being had been injured, or had been supposed to have been injured, by the use of alum baking powder in the preparation of food. While such evidence was at first received, the court ultimately excluded the whole of it as immaterial and sustained the law on the same ground that the court had sustained a law forbidding the manufacture and sale of oleomargarine in that state as being within the proper exercise of the police power of the state. The opinion is an instructive one, containing as it does a review of all of the leading decisions growing out of the various laws enacted to control the sale of oleomargarine up to that date.

City of Chicago v. Bowman Dairy Co., above. This case involved the constitutionality of an ordinance of the City of Chicago, which required dealers selling cream and milk in bottles or glass jars to have the capacity of each bottle or jar "blown into it or otherwise indelibly and permanently indicated thereon, in a legible and conspicuous manner, and prescribed a penalty for any one having in his possession bottles

or jars not so marked." The court held the ordinance constitutional as a valid exercise of the police power in the detection and prevention of imposition and fraud in the sale of a common food product.

State v. Tetu, above. Here the defendant was convicted under a statute prohibiting the sale of cream that contained less than twenty percentum of fat. The defense was that although the article which was sold only contained 8.4% of butter fat, it was "a pure article and wholesome food," and was sold under the name of "evaporated cream," and that this was the "trade mark of the manufacturer." It appeared that "evaporated cream" was the trade mark of the corporation for its product of condensed milk concentrated to a creamy consistence by evaporation, and used by it in disposing of its condensed milk. The court held that no one could acquire any vested right by using the term "evaporated cream" to designate condensed milk, and that the law was a perfectly proper exercise of the police power of the state.

In many of the above cases the contention was made, as is here made by the learned counsel for the defendants, that the particular statute under consideration was in violation of the Fourteenth Amendment of the United States Constitution, but in each case the court ruled otherwise.

"If there be any subject over which it would seem the state ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products."

Plumley v. Massachusetts, 155 U. S. 461, 479.

The court in the above case, speaking of the statute under consideration, states at page 479, that it was aimed at an offense against society and that "the states are as competent to protect their people against such offenses or wrongs as they are to protect them against crimes and wrongs of more serious char-

acter. * * * A state enactment forbidding the sale of deceitful imitations of articles of food in general use among the people does not abridge any privilege secured to the citizens of the United States."

"The Constitution of the United States does not secure to any one the privilege of defrauding the public."

In re Rahrer, 140 U. S. 545.

Schollenberger v. Pennsylvania, 171 U. S. 1.

Patapsco Guano Co. v. North Carolina, 171 U. S. 345.

Crossman v. Lurman, 192 U. S. 189.

"The power of the State to impose restraints and burdens upon persons and property in conservation and promotion of the public health, good order and prosperity, is a power originally and always belonging to the States, not surrendered by them to the general Government nor directly restrained by the Constitution of the United States, and essentially exclusive. * * * In short, it is not to be doubted that the power to make the ordinary regulations of police remains with the individual States, and cannot be assumed by the National Government, and that in this respect it is not interfered with by the Fourteenth Amendment."

In re Rahrer, 140 U. S. 545, 554-555.

Plumley v. Massachusetts, 155 U. S. 461.

Crossman v. Lurman, 192 U. S. 189.

Hathaway v. McDonald, 27 Wash. 659; 68 Pac. 376, 380

People v. Niagara Fruit Co., 77 N. Y. Supp. 805.

Jewett Bros. & Jewett v. Small, 20 S. D. 232; 105 N. W. 738.

Powell v. Pennsylvania, 127 U. S. 678.

Lieberman v. Van De Carr, 199 U. S. 552.

Logan & Bryan v. Postal Telegraph & Cable Co., 157 Fed. 570, 583.

State v. Crescent Creamery Co., 83 Minn. 284; 86 N. W. 107.

Arbuckle v. Blackburn, 113 Fed. 616.

The provision of the Federal Constitution, invoked by the defendants, was not designed to interfere with the exercise of the police power by the States, and it has not shorn the States of their power to regulate trades and occupations so as to guard against injury to the public, and to prevent deception and fraud in the manufacture and sale of food products. See in addition to cases cited above, *Garber v. Connolly*, 113 U.

St. Louis v. Fisher, 167 Mo. 654; 67 S. W. 872.

St. Louis v. Bippin, 201 Mo. 528; 100 S. W. 1048.

Powell v. Commonwealth, 114 Pa. St. 265; 7 At. 913.

Gundling v. City of Chicago, 177 U. S. 183.

People ex rel. Hill v. Hesterberg, 184 N. Y. 126.

Heath & Milligan Co. v. Worst, 207 U. S. 338.

Silz v. Hesterberg, 211 U. S. 31.

The two cases last cited are of special interest. In each of them a state statute was vigorously assailed as being in conflict with the Fourteenth Amendment of the United States Constitution. In the *Hesterberg* case the court sustained a statute of New York making it a criminal offense for any one to have in his possession certain wild game during the closed season, whether such game was caught in New York or shipped in from another state or country. The defendant was convicted for having in his possession a variety of plover, shipped and consigned to him in New York from England and Russia. The proof showed that such birds were quite easily distinguishable from the American variety, and that probably a proper inspection law was all that was required for the protection of the domestic game. The court sustained the law as a proper exercise of the police power, saying at page 40,

"subject to constitutional limitations, the legislature of the state is authorized to pass measures for the protection of the people of the state in the exercise of the police power and is itself the judge of the necessity or expediency of the means adopted. * * * We cannot say that such purpose (protection of domestic game) frequently recognized and acted

upon, is an abuse of the police power of the state, and as such to be declared void because contrary to the Fourteenth Amendment of the Constitution."

The *Heath & Milligan Company* case involved the constitutionality of a statute requiring manufacturers and vendors of mixed paints to label the ingredients comprising them in case they contained other than certain ingredients named in the statute. It was claimed that the law deprived appellants of their property without due process of law, and denied them the equal protection of the laws; that the manufacture of mixed paints involved many practical problems, that during the last twenty-five years the business had undergone an evolutionary process, which was as yet far from complete; that there were many ingredients now used in mixed paints just as valuable as those named in the statute; that to compel the complainants to label their mixed paints as required by the act would not only subject them to expense, but their products would thereby "be held up to suspicion and prejudice of the dealers in and users of the same," and would thereby make it impossible or difficult and expensive to sell the same, and that the law was void because it did not cover dealers in un-mixed paints.

It was claimed in this case, as in the cases at bar, that the appellants had worked up a very large and profitable trade in North Dakota, by advertising and by reason of the quality of their goods. "How the firmness and profit of that trade," says the court, "how the excellence and degree of that reputation can be affected by revealing the composition of the goods, is not by us discernible."

In that case, as in these cases, there was a conflict in the testimony of the experts as to the different pigments used in paints, etc. "But a problem of a different kind," says the court, "was presented to the legislature of North Dakota."

"It was not what scientific men might find out by chemical and laboratory tests, or progressive men might discover

by practical experiments but what the people of the State could find out or be justified in accepting as established. It was the experience of the people, not the acts of some progressive manufacturers, which directed the legislation, and it was to protect the people, when following the opinions formed from that experience, from deception, that the statute was enacted. It may be that the purpose could have been accomplished better in some other way. It may be that it would have been more entirely adequate, let us say, even more entirely just, to have required that all paint should be labeled, the statute nevertheless cannot be brought under the condemnation of the Fourteenth Amendment. Legislatures, as we have seen, have the constitutional power to make unwise classifications. * * * The sole prohibition of the statute is that those ingredients shall not be used without a specific declaration that they are used—a burden may be, but irremediable by the courts—may be, inevitable, in legislation directed against the adulteration of articles or to secure a true representation of their character or composition."

It needs to be remembered, as stated by the court in the above case, that "exact wisdom and nice adaptation of remedies are not required by the Fourteenth Amendment, nor the crudeness, nor the impolicy, nor even the injustice of state laws redressed by it."

In the case of *Armour & Co. v. Bird*, 159 Mich 1; 123 N. W. 580, 583 (Dec., 1909), involving the right of the State of Michigan to compel, by legislation, the disclosure to the consumer of the fact that sausage contained "cereal," which disclosure was not required to be made by the United States Food & Drug Act, the court, in sustaining the law as applied to all sales in Michigan, said:

"It is too manifest for further argument that the legislature, in enacting the law, was not providing for the regulation of sales between manufacturers and merchants, but between retail dealers and consumers—they enacted the law solely for the protection of the consumers, the people who buy and eat the product. The consumer who prefers sausage made with meat alone is entitled to know he is buying such an article. The consumer who prefers sausage mixed with

cereal is entitled to know he is purchasing that article. The contention of the complainant, if sustained, would deprive the consumer of this right which the statute plainly gives him."

(3) *The fact that "corn syrup" may be a recognized article of commerce immaterial.*

This fact does not affect the question under discussion, if the sale of the article under the name of "corn syrup" does, in fact, mislead and deceive the public.

Crossman v. Lurman, 192 U. S. 189.

Crossman v. Lurman, 171 N. Y. 329.

State v. Tetu, 98 Minn. 351; 107 N. W. 953.

(4) *The decision of the lower court, a complete answer to counsel's contention as to the facts established by the evidence.*

Counsel for defendants argues that unmixed glucose is a syrup and that when made of the starch of corn it is "unadulterated corn syrup;" that the only essential elements of a syrup are viscosity and sweetness; that the consumer buying syrup gives heed only to sweetness and consistency, and that he cares nothing about how it is manufactured; and that there is no sound basis for the holding of the lower court that glucose is not a syrup. These contentions are all fully met by the following portion of the decision of the lower court, which contains an excellent statement of the facts established by the evidence:

"The claim that it (so-called 'corn syrup') is in fact a syrup, as this term is commonly used and understood, is not sustained. The term 'syrup' has an accepted meaning as commonly and properly understood and applied to articles of food for table use. It is in this sense that the term must be applied in dealing with this subject, and in this sense the term 'syrup' is employed in this and kindred legislation regulating traffic in foods. The term 'syrup' thus employed designates articles of food which are in common use as table syrups such as maple, sugar cane and refiners' syrup. These articles in their pure and unmixed state are known by their inherent and peculiar colors, flavors and viscosity which

make them acceptable as to quality and imparts to them an agreeable taste, and hence they are desirable as articles of table food. The evidence shows that such table syrups are the products of sugar producing plants and possess these natural characteristics of flavors, colors and consistency, and that they are commonly distinguished and known in the trade as syrups. It is not disputed but that glucose, whether made from corn or other starch containing substance, is not such a syrup, and that it has none of the flavors or colors of these table syrups, though it has viscosity. The court was therefore fully justified in finding that glucose in the pure and unmixed state is not a syrup in the sense the term is commonly used and applied to these articles of table foods, and that the terms 'glucose' and 'corn syrup' are not synonymous in their trade meaning and use as applied to articles of table food. The fact that the term 'corn syrup' may have been applied to glucose to some extent by manufacturers and dealers and was thus employed in legislation in this state and in the decisions of courts does not show that glucose is commonly known by the designation of 'corn syrup.' The characteristics and qualities of glucose in its pure state are admittedly not those of the articles known in the trade as table syrups; nor is it used as a table syrup in its unmixed state. The term 'corn syrup,' as applied generally to an article for table use, conveys a meaning and designates an article wholly different in character and quality from that of glucose. It does not appear that 'corn syrup' designates a mixture having a fixed proportion of glucose or syrup constituents. It seems that such constituents are of variant proportions in the article sold as 'corn syrup.' Nor can it be said that the great mass of persons understand that 'corn syrup' is a mixture of glucose and syrup. The natural result of such use of the term 'corn syrup' is to mislead the consumers into the belief that they are obtaining a table syrup of the variety and kind commonly known as syrup, the product of sugar producing plants, and the consequences of such practice are that the consumers are misled and deceived in the respects as to the actual nature, the constituents, and the value of the article as a food product. Such a state and condition of affairs respecting the traffic in an article of food, though the article and its constituents are wholesome, is a well-recognized ground for the exercise of legislative authority under the police power to prescribe regulations to protect the

people from imposition and deception in trafficking therein." Trans. 486-487.

The decision of the lower court in these cases is in line with the reasoning of the court in

United States v. Scanlan, 180 Fed. 485.

Here, a party manufactured syrup from cane sugar, flavored to represent maple syrup by the introduction of an extract or syrup made from maple wood after it had been chopped down. The brand upon the can in which the article was sold contained, among other statements, this: "This syrup is made from the sugar maple tree and cane sugar." The court held that this was a misbranding; that "it was intended to convey the impression that there was a mixture, in the popular meaning of a mixture, of maple syrup and the syrup which is made from cane sugar;" that the information conveyed by the label was that the article was "primarily maple syrup." The court further held that it was not a question of chemistry. "It is a question of what is the popularly recognized definition of maple syrup; and that undoubtedly is, and we do not need the chemists to testify to it, that it is the syrup produced from the boiling down the sap that flows in the spring of the year from the live maple tree." "So that, if this syrup is made, as Mr. Scanlon (the defendant) says it is made, by some treatment of the chopped down maple tree, whereby he gets an enormously larger amount of what may be called maple saccharine than is obtained from the free flowing of sap, *that is not maple syrup which he gets from it,*" and, "*that is not maple sugar which he makes.*" (The italics are ours.) All of the foregoing is in exact line with the testimony of Dr. Fischer. (Trans. 426.)

While it does not appear, in the above case, just how the maple wood was treated, it is evident, under the testimony in these cases, that the article made by Mr. Scanlon from the maple wood was nothing but "commercial glucose."

(5) *The decision of the lower court was in no way controlled by any mistake of fact.*

Counsel, at pp. 52-53 of the brief, argues that the decision of the lower court was controlled by a mistake of fact; that the court failed to observe that in the Grady case the mixed article was labeled "Karo corn syrup with cane flavor," while in the McDermott case it was labeled "Karo corn syrup." We submit that the decision of the court is not open to any such attack. The branding of this article, in each case, was in plain violation of the Wisconsin statute. That in one case the manufacturer chose to designate the mixture merely "corn syrup," and in the other, "corn syrup with cane flavor," is immaterial. In each case the law was violated. It was further violated in each case in the statement made of the ingredients of the mixture. In neither case was it lawful to brand the article, whether mixed or unmixed, as syrup, or as corn syrup. In either case such branding was calculated to deceive the consumer into the belief that he was buying a true syrup, and there was the same "resultant deception" in the Grady case as in the McDermott case.

(6) *The Michigan Statute and decision considered.*

Compiled laws, Sec. 5024 of Michigan, required all syrup mixtures containing glucose to be marked or labeled "glucose mixture." In 1903, this act was changed by providing that any cane syrup or beet syrup mixed with glucose should be labeled or branded "glucose mixture" or "corn syrup." The proper construction of this act was involved in *People v. Harris*, 135 Mich. 136. This case is much relied upon by defendants. A reading of the decision will disclose that the case is not at all in point. The statute of Michigan expressly permitted the use of the term "corn syrup" as a synonym for "glucose," and hence no other conclusion could have been reached by the court in this case, except to discharge the defendant.

The case is somewhat remarkable for the loose way in which it was tried. It was tried upon an agreed statement of facts which practically conceded the state's case out of court.

One statement found in the opinion is most significant. Perhaps no incident more fully demonstrates the deceptive character of the term "corn syrup" to designate the product in question than the following statement from the opinion of the Michigan court in the above case:

"Syrup as defined by the United States Department of Agriculture, 'is the product obtained by purifying and evaporating the juice of a sugar producing plant, without removing any of the sugar.' Syrup thus obtained from cane is cane syrup, syrup so obtained from sorghum is sorghum syrup, and *syrup so obtained from corn is corn syrup.*"

Nothing can be plainer than that the Supreme Court of Michigan, in rendering its decision in the above case, understood that the product which was being offered to the public as "corn syrup" was produced by the boiling down of the juice of the corn plant. The language quoted above admits of no other interpretation. The question naturally suggests itself, if the Supreme Court of a great state is so deceived by the use of the term "corn syrup," what is to be said of the ordinary purchaser, or consumer? This decision is the strongest corroboration of the testimony of Dr. Fischer as to what the common people understand by the term "syrup." Trans. 50.

(7) *The claim that the article in question cannot be sold under the name of "glucose flavored with refiners' syrup" is unfounded.*

The testimony shows that the wholesale firm of Gould, Wells & Blackburn were, at the time of this trial, selling this article extensively in the city of Madison, (and that the same was manufactured by the Corn Products Refining Company), as "glucose flavored with refiners' syrup" in accordance with the

statute. Trans. 129, 131. Mr. Larson, a state inspector, found that out of twenty-one grocery firms in the city of Madison, visited by him one day during the trial, fourteen were selling this article branded and labeled according to the Wisconsin statute. Trans. 289-291.

W. F. Scott, another food inspector, whose field covered the southern part of the state, testified that, excepting the Corn Products Refining Company, this article was being sold by all of the dealers as "glucose flavored with refiners' syrup." Trans. 287-288.

Counsel for defendant is not quite accurate in stating, at p. 46 of the brief, that the trial court found that "the public generally would not purchase the defendants' product if it were put out under the name of 'glucose.'" What the court said was, "*When the defendant established the fact that the public generally would not purchase the product, if it were put out under the name of 'glucose' (which is shown to be a proper designation),*" etc. This statement must be taken in connection with the foregoing undisputed testimony. It was the claim of *the defendants* throughout the trial that the public would not purchase this article under the name of "glucose." Hence the effort of some of these witnesses to show that in the mind of the public "glucose" was considered as some "nasty thing." The eminent Dr. Chandler, ever ready to serve his client, volunteered the statement: "It (glucose) has been represented in the public press as something that is not fit for human food." Trans. 259. And yet, this same witness, in a letter, dated April 11, 1898, addressed to the "General Manager of the Glucose Refining Company," predecessor of the Corn Products Refining Company, said:

"In reply to your favor asking me if I have seen any reason to change the opinion which I expressed a good many years ago as a member of the special committee of the National Academy of Sciences, appointed at the request of the

treasury department to investigate the subject of glucose or grape sugar, I would say that although I have kept myself informed upon this subject, nothing has occurred, and no facts, chemical, physiological or sanitary have been published which in any way indicates that the opinion arrived at by our committee was not absolutely correct. You will remember that our committee carefully investigated this subject, examined the different factories where glucose or grape sugar is manufactured, studied carefully all the processes in it, saw made the analyses of all the products and made experiments upon the use of the products in different ways, and we could not find the slightest reason for supposing that under any circumstances grape sugar or glucose is in any way objectionable as an article of human food. * * * In conclusion I will say that there are no articles of food to be found in commerce less liable to suspicion than the glucose or grape sugar sold in the United States." Trans. 233-234.

We find nothing in the above about glucose being unfit "for human food." The other leading witness for the defense to establish the alleged popular prejudice against glucose is the advertising expert, Mr. McKinney, whose keen interest in the cause of the Corn Products Refining Company is evidenced by the fact that he prepared and filed a brief in behalf of the company at the hearing before the three secretaries. He volunteered the statement, "I thought like everybody else that it (glucose) was some nasty thing made out of dangerous articles." Trans. 148. We invite the court's attention to the cross-examination of this witness commencing at page 147 of the transcript. It was Mr. McKinney who said glucose he thought was associated in the popular mind with the glue factory on account of the first syllable of the word "glucose." This is about as ridiculous as would be the contention that the public associates catsup with dead cats.

If it be true that the people have become prejudiced against glucose, then there can be but little doubt that this prejudice is due to the fact that this article for so long a time and

so extensively was masqueraded under various fancy names as an adulterant of more costly food products. Glucose is much more generally associated in the public mind with *fraud* than with *glue*.

So long as this article went to the consumer under the false and fraudulent names of fancy table syrup, golden syrup, crystal drips, rock candy drips, the consumer never heard of the term "corn syrup." But when legislation in the different states made the selling to the consumer of the fraudulent mixture (composed mostly of glucose) under these catchy names, a criminal offense, then it was determined to put the same article out under the name of "corn syrup." Hence, this term was conceived in fraud, and ever since its adoption the extensive sales of the article in question have been largely due to the most extensive and persistent fraudulent advertising. Through these means a cheap, inferior article of food has already largely displaced in the markets of this country true syrups, such as cane, sorghum and maple. The inferior article has evidently been sold at prices that yield tremendous profits. This is shown by the enormous amount of money that has been expended in the fraudulent advertising of this article. The combine that is back of this article and back of the defense in these cases is a strong one. But no citizen of Wisconsin objects to any profit it may make in the conduct of a legitimate business. The citizens of Wisconsin do object, however, to the sale within the state of a food product composed of ninety per cent of glucose in such a way as to lead the consumer to believe that it is one of the true syrups.

IV.

The dissenting opinion of two of the justices of the lower court considered.

Two of the seven justices comprising the lower court dissented. The dissenting opinion is based upon two grounds, one an erroneous proposition of law, and the other a mistake of fact.

1. The dissenting justices are clearly in error when they state that in order to justify a law passed by a state to prevent deception or fraud in the sale of a food product, "the fraud or deceit * * * must be something that must be recognized by law as actionable fraud." No decision of any court is cited in support of this proposition, nor do we believe that any can be found. The books are full of decisions establishing the contrary doctrine. The following are a few of such cases:

State v. Sherod, 80 Minn. 446; 83 N. W. 417.

Stolz v. Thompson, 44 Minn. 271; 46 N. W. 410.

State v. Layton, 160 Mo. 474; 61 S. W. 171; 83 Am. St. R. 487.

City of Chicago v. Bowman Dairy Co., 234 Ill. 294; 84 N. E. 913.

Silz v. Hesterberg, 211 U. S. 31.

Heath & Milligan Co. v. Worst, 207 U. S. 338.

2. The dissenting justices assume that there is a connection between the first part of section 4601-1a (Chap. 557, Laws 1907, Wis.) and the decision of the three secretaries of February 13,

1908. Trans. 489-491. This constitutes the error of fact. As we have shown in another part of this brief, the first part of this section is separate and distinct from the latter part under which these prosecutions fall. The first part deals with the unmixed article and provides that the article sold must "be true to the name under which it is sold as defined in the standards of purity for food products as latest promulgated by the United States Secretary of Agriculture," and the barrel, cask, keg, can or pail or other original container "be branded or labeled with the true name of its contents *as defined in the above named standards.*"

Now what were the standards *latest* promulgated by the United States Secretary of Agriculture? They were those embraced in Circular No. 19, adopted June 26, 1906. These were the standards referred to in the Wisconsin statute which was approved July 10, 1907, some seven months before the decision of the three secretaries. That the word "latest" will be construed as referring to the existing standards, see:

State v. Emery, 55 Ohio St. 364; 45 N. E. 319.

Hence, there was no inconsistency between the Wisconsin statute and the standards as approved by the Secretary of Agriculture. Both the statute and the standards prohibited the use of "corn syrup" as a synonym for "glucose." Moreover, these standards have never been changed. The secretaries had no power to either change the standards or adopt new ones.

From the foregoing it is seen that the learned justice who wrote the dissenting opinion based his opinion upon an erroneous view of the facts. There is no inconsistency between the two parts of the section. Both parts absolutely prohibit the branding of commercial glucose as "corn syrup."

We respectfully submit that no error was committed by the

lower court in sustaining Chapter 557, Laws of 1907, Wisconsin, as a valid law, and its decision in these cases should be affirmed.

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